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BRITAIN'S BEST-SELLING MAGAZINE FOR THE AMSTRAD

CPC GX4000 PLUS

ISSUE No. 77
FEBRUARY 1992
£2.50

AMSTRAD ACTION

1992
THE FRENCH CONNECTION

The biggest CPC market in Europe is just across the channel...
Read our special report inside

More Amstrad reviews, tips, letters, help, info and fun than any other mag!

Zut alors! Ou est le covertape? Parlez avec votre newsagent immediatement!!

Plus

● WWF – the best wrestling game ever?

● Compilation Crazy! The best of the bargain packs reviewed...

● What do you want from AA in the coming year? Giant survey starts

future
PUBLISHING
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▲ **ALSO ON DISK!**

Want a disk version of the covertape? (6128 Plus owners take note) Check out the tape pages for details on how to order your copy.

AMSTRAD ACTION
FEBRUARY 1992

LINE UP

1992: THE FRENCH CONNECTION 20

The CPC is still one of the biggest formats in France. As a united Europe approaches, we look at the future

PAPERBOY 2 32

The sequel to the golden oldie... but is it too late? Find out inside...

WWF 34
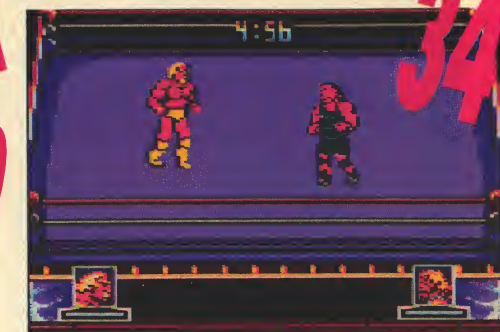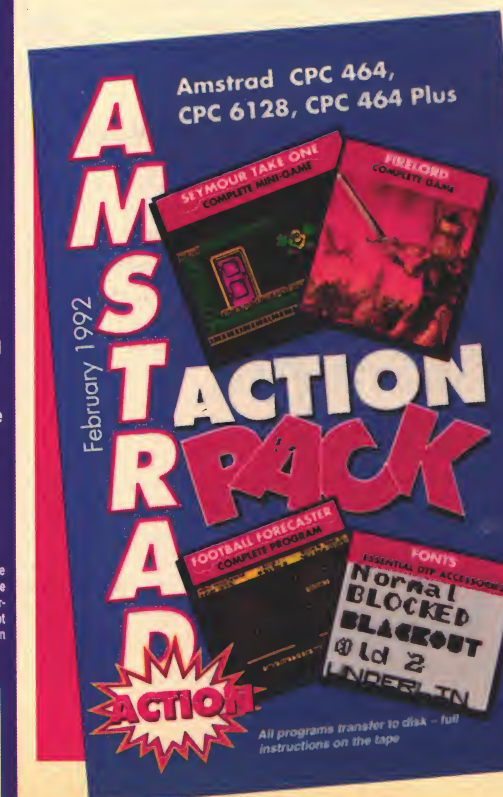
Oof! And Hulk Hogan comes off the ropes to land a flying tackle... and has he got his man pinned for a fall...? Or is Ocean's latest the one flat on its back?

GAC tutorial starts 42

Last month we put *Graphic Adventure Creator* on the covertape. Now learn to write your own adventures...

GIANT SURVEY FOR 1992 55

Now it's your chance to have a say in what happens in *Amstrad Action* this coming year...

ACTION PACK

HOW TO LOAD THE COVERTAPE

Amstrad CPC 464, CPC 6128, CPC 464 Plus

February 1992 ACTION PACK

FOOTBALL FORECASTER · FONTS

Normal BLOCKED BLACKOUT @ld 2 UNDERLIN

All programs transfer to disk – full instructions on the tape

Loading the programs couldn't be easier! Type RUN" (followed by RETURN) and press a key to start the tape. (A shortcut way to get RUN" is to hold down CONTROL and tap the small ENTER key.)

A menu screen will appear in a short time. Select the program you wish to load. Press SPACE to highlight the program you want followed by RETURN to load the program. The *Firelord* and *Seymour Take One* are on side one of the tape. *Football Forecaster*, *Fonts* and the games pokes are on side two. Turn the tape over and rewind to the beginning to load these programs.

So that we can pack as much as possible on to the covertape, we use a special menu/loader system. This means that all the games and demos

use the same loader – you have to load the menu first, then select the game you want. (Disk users note)

Some programs, however, are written in BASIC, and although they appear on the menu, they can also be loaded separately. Indeed, if you select one of these from the menu, you will be told to quit back to BASIC and then load the program.

Note that this month *Football Forecaster*, *Fonts* and the pokes must be loaded directly from BASIC (with the RUN" command).

● *If you have a disk drive connected to your machine you'll first have to type |TAPE to switch the machine to tape loading rather than disk loading. (The | is obtained by pressing SHIFT and @) The computer will load the next program.*

FIRELORD

This Hewson arcade adventure scored a massive 84% – a Rave – back in *AA16*. Don't be put off by the Speccy-style graphics. There are 500 screens to explore (!) as you roam the land of Torot.

The Evil Queen has seized the Firestone, using its power to bring a curse down upon the land. The people now hide in their houses, while ghostly apparitions wander the streets...

Your job, as the brave Sir Galaheart, is to find the Firestone and return it to its rightful (and right-thinking) owners.

The ghosts who wander around will drain your energy if you run into them, so keep out of their way if you know what's good for you. Find a special 'enchanted' crystal, though, and you can shoot them.

Go into the houses and buildings to talk to
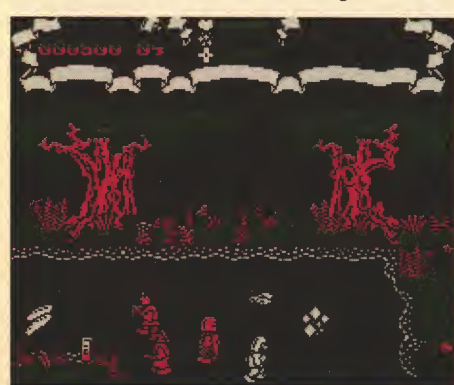
and trade with the inhabitants. Trading is a central part of the game, and you carry this out via a serious of icons on the bartering screen. Use the joystick or keyboard to place the cursor over and icon, and press Fire to select it. Changed your mind? Press Fire again and the icon is de-selected.

The occupant of each building offers one or more goods or services. You trade using your own objects, collected as you travel through Torot. If you don't have enough to trade, though, there is another option – steal! Be careful, though, not to get caught...

Once you've finished your transaction, click on the Exit icon to leave the building.

■ **Firelord controls**
You can use either a joystick or the keyboard

|	
O	Left
P	Right
Q	Up
A	down
M	Fire

SEYMOUR TAKE 1

We've talked the Codies into producing a special, one-off, totally exclusive *Amstrad Action* only *Seymour* mini-game for our covertape! (!)

Remember *Seymour goes to Hollywood*? (We reviewed it in *Budget Bonanza*, *AA74* and gave it 92%. Not bad, eh?) Well *Seymour Take 1* is like a

cut down version, just to give all you arcade adventure fans out there a taste of the Codies latest creation. Actually, *Seymour* is a bit like *Dizzy*, only, er... different. The game style is much the same as in those egg-shaped exploits, though – you have to collect objects and solve puzzles as you explore the game.

As with the *Dizzy* games, the idea is to explore the screens that make up your computer world, picking up items as you go. You'll need these various items at different stages in the game, but it's up to you to work out when...

■ **Seymour Take 1 controls**
You can use either keyboard or joystick

Z	Left
X	Right
Space	Jump
Return	Pick up/use object

● Don't be fooled by the cutesy, simple graphics – *Firelord* presents the player with a quest of epic proportions.

● Just for you, *Seymour Take One* – a special mini-version of the Codemasters adventure *Seymour goes to Hollywood*.
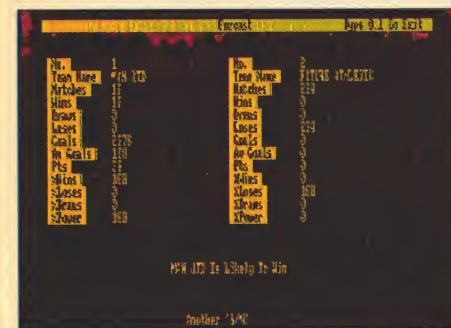
FOOTBALL FORECASTER

Won anything on the pools lately? Well, this program, from reader Mannan Ali, could just improve your chances...

Football Forecaster lets you do a variety of very interesting things. First of all, you can keep track of your favourite team – in fact all football teams, for that matter – regularly updating the stats after each Saturday's games.

You start off by creating your own data file, storing information on as many or as few teams as you like.

If all that seems a bit of a bind, though, Mannan has included a full set of team results from the first third of this year's season.

Having got your data file set up, team stats can be edited at will (via option B on the main menu) and new teams added when required (A).

● *Football Forecaster* will let you keep track of your favourite football team and even make pools predictions!

But that's not all! Fact fiends can rearrange all teams into descending points order (highest-scoring teams at the top).

You can also check to see whether a team is on your list, get all sorts of team info, save and load your data and produce forecasts for forthcoming matches.

There's plenty of prompting throughout the program to tell you what's going on, plus an Info file (N on the main menu) to explain in detail what the program does. Cool, huh?

Tape won't work?

We hope that your covertape will load first time. However, having worked with computers for as long as we have, we know that things don't always go like clockwork. If you have problems loading the tape, try the following:

● Try loading at several different volume levels if you're using an external tape recorder. Computers can be very fussy about the volume they will load at.

● Clean the tape heads. This can be done with any commercially available cleaning kit. Alternatively, use a cotton bud soaked in alcohol. Gently rub the surface of the heads and pinch roller to remove that layer of accumulated grime.

● Adjust the cassette recorder's head alignment. The alignment screw is located

just to the left of the tape head, and is usually accessible through a small hole. Rotate it a fraction at a time with a jeweller's screwdriver. When the crispest sound is heard, the alignment is spot on.

● Sometimes the tape spools can jam or stick at a critical moment. Check the spools in your cassette rotate freely, if necessary giving the casing a slight tap against a table edge just to make sure. If, after trying the all of the above, you still can't get the tape to load then you can return it for a replacement. Send the tape, along with an SAE to:

AA77 Covertape Returns, Ablex Audio Video Ltd, Harcourt, Halesford 14, Telford, Shropshire TF7 4QD

FONTS

DTP users will love this batch of fonts from Richard Wildey and Dave Carter. All the fonts are in the standard font file format (with the .FNT suffix) and will load into *Stop Press*, *Pagemaker Deluxe* and probably other DTP programs too. However, they won't load into last month's covertape program *Pagemaker Plus-T*. This is because that program was specially adapted to run from tape. Sorry about that!

The font loading program will load the fonts into your CPC's memory, replacing the standard character set.

POKES GALORE

Another batch of cheats comes your way, thanks to Phil Howard and his band of merry pokesters. This month's routines (together with their filenames) are as follows:

4ACTION.AP
There are cheats for each of the four games on the *4 Most Action* compilation.

EXTREME.AP
Is life getting too tough for you in Digital Integration's *Extreme*? This poke (disk version) gives you infinite just about everything...!

FINAL.AP
The disk version of *Final Fight* gets extra credits and extra lives for both players.

HYDRA.AP
Infinite boost is yours in Domark's watery arcade conversion *Hydra*.

OFFROAD.AP
Want infinite boost in *Off Road Racer* (disk version)? You've got it!

RICKDANG.MP
The poke in *AA62* for the Microprose Mastergame *Rick Dangerous* wouldn't work for the version of the game on the *Six Appeal* compilation – but this one does!

● Full instructions for loading and using the pokes can be found in the *Cheat Mode* section, page 40.

DISK DRIVE OWNERS READ THIS!

If you have a disk drive, you'll no doubt find the prospect of loading everything from tape daunting. Thanks to our special tape to disk transfer program, you'll only ever have to load from the tape once – all programs are transferred easily to disk.

Insert a blank formatted disk into the drive and the covertape at the start of side one into your cassette player. Connect the REM socket if you have one (6128 owners) – it'll automatically stop the tape in the right places when accessing the disk drive.

Load the menu program in the normal way and select the TRANSFER TO DISK option. Follow the on-screen instructions and press a key when the computer asks you to. It's as simple as that!

Should you experience problems you'll be asked to rewind the tape and try again. Don't panic if this happens – follow the advice for tape loading troubles.

DISK OFFER

All the programs on the *Amstrad Action* covertape are easily transferable to disk. However, owners of the 6128 Plus are unable to connect a cassette recorder to their machines, and some of the rest of you may experience loading difficulties.

We've come to a special arrangement with our duplicators. For a small charge to cover costs, they will supply a disk containing all the programs we're giving away on the tape. If you would like a copy on disk, simply send

your name and address along with a cheque/postal order for £2.00 made payable to Ablex Audio Video Ltd to:

AA77 disk offer, Ablex Audio Video Ltd., Harcourt, Halesford 14, Telford, Shropshire TF7 4QD

You may also order previous covertapes from issues 67 onwards – just make sure that your envelope is clearly marked with the issue number of the covertape you require.

● *Note that when running covertape programs from disk you should type RUN"MENU. While some of the programs may be written in BASIC, others (principally games and game demos) will be written in machine code. These can only be loaded via the main menu – they do not have loaders of their own.*

Amscene

MIRRORSOFT HITS TROUBLE

### Games publisher goes up for sale as Maxwell empire topples...

As the various intrigues and goings-on in the Maxwell empire continue to emerge after the big man's death, some of the company's subsidiaries are starting to suffer.

Mirrorsoft is one of Maxwell's two computer ventures – the other is a distributor called Rushware in Germany.

The administrators have been called in and are currently trying to sell Mirrorsoft as a going concern. However, the company's assets have been frozen and the administrators are in touch with creditors.

Whatever the current crisis, it seems likely that Mirrorsoft will survive in one form or another, either following a management buy-out or offers from other companies.

It would be sad indeed if Mirrorsoft didn't continue. It's one of the comparatively few publishers still supporting the CPC with full-price software. Indeed, it produced what should prove to be one of the biggest games this Christmas – Turtles 2: the Coin-op, as well as the first home
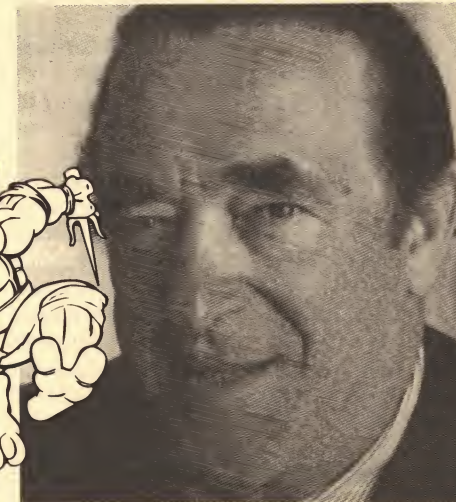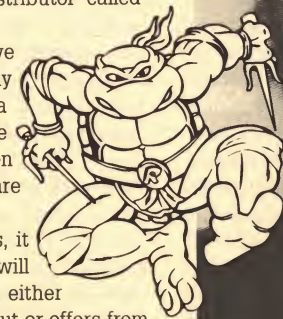
● As investigations into Maxwell's business empire continue, Mirrorsoft goes up for sale. Will we see another game like *Turtles 2*?

computer Turtles game (the previous Christmas). The company also published the three *Back to the Future* film licences.

WACCI changes hands

Fans of the CPC user group WACCI have been wondering what's happened to the company's regular magazine.

Well it seems WACCI hit some pretty big problems. Steve Williams, who previously ran WACCI, has now left for another venture. However, WACCI itself will continue. It's been taken over by Clive Bellaby, up in Nottingham.

Clive would like all WACCI subscribers to get in touch with him so that he can fill them in on what's going to be happening in the future. Write to: Clive Bellaby, 12 Trafalgar Terrace, Long Eaton, Nottingham NG10 1GP.

Have your say!

Have you filled in our Giant *Amstrad Action* survey on pages 55 and 56 yet? Well then do it right away! It's your chance to have a say in the look of *Amstrad Action* for 1992.
m\You know what they say – "if you don't register, neither will your views"!

Future of charts in doubt

There may be a change in the way the software charts are compiled, depending on the outcome of discussions between ELSPA – the European Leisure Software Publishers Association – and the rest of the industry.

Until now, ELSPA has commissioned Gallup to prepare software charts based on retail sales, but a new plan is being discussed whereby ship-out figures – the number of copies of games *ordered* by retailers, rather than the number actually *sold* – are used. The latest computerised stock systems allow accurate tracking of products – including unsold returns.

The advantage of ship-out figures is that the major distributors only are involved, rather than thousands of individual retailers (it's effectively impossible to poll them all). Therefore, *all* sales will be accounted for, leading to greater accuracy and a better overall picture.

However, ELSPA hasn't made a final decision yet. In the meantime, *AA* will be running its own charts, based on those sent in by our readers.

The unstoppable All Formats Advance...

These All Formats Computer Fairs are taking over! Three new venues have been added across the country. These are Haydock Park, Donington Park and the Northumbria Centre in Washington (er, Washington off the A194, that is, not Washington DC).

There are now eight venues for the Fairs,

each one hosting a Fair between four and six times per year. Don't expect to find any new launches or glitzy stands and these dos, though, just loads of bargs on trestle tables.

If you want to check dates, buy tickets or even book a stand, call John Riding on 0225 868100.

● Is there no stopping these All Formats Computer Fairs? New venues are springing up across the country.

Reaction

So it's 1992 then is it? Blimey, it seems like only last month that it was 1991. But that was then, this is now, and it's time to become Europeans.

We've certainly been getting into the swing of things here at *AA* Towers. Ange has bought one of those French stripy shirts, Maryanne has started driving on the right hand side of the road (*what's new? – ed*), Adam Waring has been taking Chinese lessons (but not, unfortunately, geography ones), and Rod, er, Rod's bought a pizza.

ADAM PETERS? Oh, he's been too busy editing these letter pages to do anything else (*oh yeah? – ed*).

Remember to send any techie stuff to *Forum*, any requests for cheats to *Cheat Mode*, and any empty Coke cans to *Blue Peter*.

But send your complaints, arguments, insights, opinions, jokes and (if you must) poems to *Reaction, Amstrad Action, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.*

Eh maintenant, votre lettres...

The Battle Continues

I suggest that next time Graeme Chesser (*AA75*) replies to a letter in *Reaction*, he should read it a little more carefully than he did with the Michael Davies case (*AA73*). What do I mean? Well I'll tell you.

Concerning all this business about Jane Marie and us male "sh*ts". Michael did not state that *AA* is a male-only mag as Graeme thought. He simply said that if males didn't exist, then men and women wouldn't be able to get together and have cute little babies, and so the human race wouldn't be able to continue. And that, Graeme, would mean that CPCs wouldn't be around, neither would *AA*, and best of all, neither would you. Got that? Or is it too complicated for you to understand?

Graeme then complains about Michael saying that Marcus Kasumba is poisoning his mind, and may I now quote him, "I think it is Michael who is poisoning his mind, what with swearing every other syllable". Can I just point out that, apart from quoting Jane Marie (which doesn't count), Michael only swore once in his letter. And guess how many times Graeme swore... once as well! It seems like a major case of hypocrisy to me, and nobody likes a hypocrite, do they? Oh, and while I'm on the subject of poisoning your mind, who was it that brought up the subject of ripping up old grannies in the latest Codies simulator? Personally I think that this is far sicker than the odd swear word.

Thirdly, Graeme, do you realise that Michael didn't say "Down with Mr Skilton's modems and disks etc, let's go out and hunt down every single one we can find and smash it to smithereens with an extremely large machete," as you seem to imagine. What he simply said was that we don't want to read about the damn things. Isn't there a specialist magazine that he can send this garbage to, so there's more space for decent letters (like this one) in our beloved *AA*? If not,

can some poor masochist start one. Maybe you could Graeme. After all, you seem to have a lot of time for the things.

So, Graeme, I'm eagerly awaiting your reply. I'll look forward to seeing how you can wriggle your slimy little way out of this.

Craig Brewin
Loughborough

Adam: *Well Craig, there was actually quite a lot of swearing in Michael's original letter, but we cut most of it out. But hang on to your horses folks, look who's here...*

Mad Mike rides again

If a reply's what you want from 'Mad Mike' then you've got one, but I think you'll find this is a lot less interesting than my last inflamed effort.

Firstly, Graeme Chesser's letter. Where the heck his idea came from that I think *AA* is a male only mag I don't know (and would like to know). What I was trying to point out was that Jane's letter implies that anything of the male genre should not be allowed to exist. Her letter was just a piece of blatant radical-conscienced feminism, and if, Graeme, you think that you're right about me implying that *AA* should only be a male mag then jolly well think again. I support females contributing to and reading *Amstrad Action*. (*That's good of you, Mike.*)

About the M Kasumba case, both yourself and Graeme are absolutely RIGHT. This was one part of the letter I regret writing but, Marcus, in your *AA75* reply you state that you were referring ONLY to text-only adventures. If you look back at your original letter, you'll find you put "and a few trashy pictures" in brackets.

Point 3: Mr Chesser complains about my slagging off of Peter Skilton. Mr Chesser seems to think that what I said is that M/C, disks and modems should be banished out of existence.

THE GREAT TYPE-INS DEBATE

PUT THE *TYPE-INS* on the cover tape. Who the hell wants to be sat there typing in someone else's program when they could type in their own, or at least learn how to?

P Robinson
Barrow-in-Furness, Cumbria

I MUST ADMIT I looked forward to the arrival of regular cover tapes and have been bitterly disappointed that so far they have not included *Type-ins*. I don't have the time to type them in myself but it would be enjoyable to see somebody else's programming skills and pick up a few tips. Or are they so bad that

they only look good in print? You allow readers room in the mag, why not on the tape?

Stephen Braithwaite
Scunthorpe

Adam: *It's can of worms time, readers. Shall we take Type-ins out of the mag and bung 'em on the tape? What is the appeal of Type-ins? Is it mainly that they're free programs? Is the act of typing them in most of the fun, or just a time-wasting irritation? Let us know how you feel as soon as possible. Write to The Great Typos Debate at the usual address.*
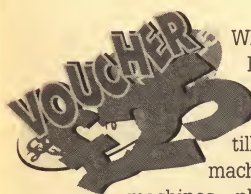
What I meant was that Mr Skilton RAMs it down our throats that if you don't spend 9 till 5 in front of your machine with all manner of machines plugged into it, then you're as thick as pig excrement. He seems to clearly object to a fun object called a computer game ever being made. And, Mr Chesser, it's partly games that are keeping the CPC alive as well.

Michael Davies
Swansea

Adam: *Er, it seems that everyone is knowingly mis-interpreting what the other*

side say to make it all seem more extreme. What a load of nonsense. Oh well. Send your abusive missives to the usual address, marking your envelope "I'm Angrier Than A Giraffe Who Has Just Had A Very Low Bridge Built Outside His Front Door".

A Toilet Humourist writes

Yo bro! Any cool dudes out there readin' yer mag, like, seen the *Toys 'R' Us* ads on the box. Ah seen it wit ma own two eyes man! A giraffe playing wit' a 6128 an' a 464 SIMULTANE-OUSLY! Is this some sort of happenin' dud or what? Ah find it kind ah difficult, man, trying not to perform brain surgery on ma pet gerbil while sittin' on the crapper.

Well, gotta go now dudes, it's me bowels playin' up again. Caralumba!

James Banyard
Sandwich, Kent

Adam: *James asks in his PS if this is good enough to win a £25 voucher. Put simply, James, no it isn't. I'd guess that you're probably an only child, and your most vivid memory of early childhood is of being forced to eat parsnips. In fact, the only reason we've printed your letter in the first place is so I could make a joke about you coming from a town called Sandwich. Unfortunately I can't think of one. Next...*

CRAP POEM OF THE MONTH

Amstrad Rapp

I purchased an Amstrad a while ago,
But how it worked I did not know.
I thought my computer may have a disease,
It was then someone told me, you're s'posed to press the keys.
So after typing in my name once or twice,
The reply 'SYNTAX ERROR' was displayed in a trice.
I popped in a disk without fault or obstruction,
Michael only swore once in his letter.
Waggling the joystick without reading the instructions.
The game must be faulty, I said to myself,
I took the game back, the man put it on a shelf,
And gave me another, with which to go and play.
This neither worked but later that day
I got it to respond, the joystick was no sin,
Of all the thick things in the world it wasn't plugged in.
So I've sent you this poem, cos your mag is the best,
It's comic and serious with a little extra zest!

Tom Ash
Bingley, W Yorks

Grovel Hovel

Now as you know, Christmas time is here,
But this Christmas isn't going to bring much cheer,
You see, I need financial aid,
So I can buy *Turtles 2* and *Space Crusade*.
So twenty five quid wouldn't go amiss,
And to earn this money I have written this;
(cue funky drumbeat etc)
Amstrad Action is ace and skill,
They make the other mags feel quite ill,
Cos they are envious when they see,
How *AA* rates games so accurately;
Writing this mag are a chosen few,
So let me introduce the *AA* crew.
There's MC Alex, to help us out,
And DJ Balrog gives adventurers a shout.
And next to come in this hall of fame
Is Adam Peters, who reviews the games.
And let's not forget Rod Lawton the Ed,
Who is responsible for all I have said.
And now it's time to end this song,
So unless I have said something wrong,
I will expect some money to come my way,
So I can be happy on Christmas Day.

Eddie Mullen
Stockport

Local Colour

Once a month or so I pop
My head into the paper shop,
Surveying keenly, swivel-eyed,
The merchandise on sale inside.
From out the ranks of sweet and fag
Springs *Amstrad Action* (splendid mag),
Full of promise, wisdom, charm,
I scoop it deftly to my arms;
Feeling flushed with grinsome thrill
I bear my trophy to the till,
Questing into pockets, whence
Emerge two pounds and fifty pence.
Present the coins to cashier girl,
"No sale" rung up. With graceful twirl
I exit said blessed boutique,
To reappear in four more weeks.
Clutch my prize and leg it home,
Inspired by God to pen a pome.

Obvious Pseudonym
Hanwell, London

LORD BYRON'S BIT

Hurrah! We've managed to persuade famous funny man Lord Byron to come out of retirement (er, death actually) and join the *AA* staff in judging our Crap Poem of the Month contest. He knows a bit about poems and stuff, apparently. Take it away, Byrie...

*Oh God, oh no,
oh woe
is us.
A new spot appears
we'll soon regret.
Send your poems
by post
or bus.
We'll study, select
the crappiest.
From Glasgow,
Greenwich,*

*Grimsby, Iver,
The worst will win
a twenty-fiver.*

*That Obvious bod
came close,
according to Rod,
for "grinsome thrill"
(which made us ill)
and blaming God.
Eddie's poem wasn't bad,
though he'll be sad*

*to hear
he hasn't won.
Sorry mate,
Christmas has gone,
you were too late.*

*This month Tom Ash
wins the cash
(well, the voucher)
for his rap,
which was mega-crap,
as no one'll doubt (yeah).*

*And if you,
dear reader,
are unimpressed,
bung your stanzas
on some paper.
Send 'em to
"Plant an acorn,
Grow a tree,
Here's some
dead poor poetry"
at the usual address.*

It's flippin' criminal what people get up to, and no mistake!

ANGRY LETTER OF THE MONTH

I am writing to you because I am fed up with all the piracy and conning which is going on in this country today. Pirates make me sick because they say that software houses charge too much for their games but they know full well that most full-price games are good value for money and they can buy budget games for anything from as little as £1.99 upwards. So why do they pirate games? I'll tell you why; as long as there is something to be pirated it will be pirated. It's in human nature. The one thing

I can't understand is why all this fuss about computer games when millions of people copy music cassettes or tape music off the radio. Strange isn't it?

Anyway, on to my second point. There is someone in my class at school and he can do nothing but swindle and con people out of money. This con, he has an ST (that makes things worse) with a double-sided disk drive and he bought *Lemmings*. Now being the con that he is he wrote to Pygnosis (I think that's how you spell it) saying he had a single-sided disk drive and when he got the other disk(s) back he pirated the master disk and then sold it with the other disk(s). If you think that's bad wait until you hear this one, he plans to con Cheetah that nice joystick company out of some money. He bought a joystick and gave it to somebody for a birthday present and conveniently it was broken, and now he has written to Cheetah with the said joystick and a few quid to try and get a lot better joystick than the

money and the value of the joystick are worth. That's not all but I haven't got time to write more.

Name and address withheld

Adam: *Aaaaargh! Oh no, my brain's exploding! Kerschow! Phew, sorry about that. Now, where was I? Ah yes, well you're quite right Mr Name and address withheld, that mate of yours does sound like a right crook. Maybe you should call the police or something.*

Meanwhile, if anyone else would like to grass up their classmates, feel free to drop us a line. Maybe one of your friends has been writing graffiti in the school bogs? Perhaps someone in your history group picks their nose? Angry Letter of the Month wants to hear from you. I'm off to stick my head in a bucket of porridge whilst humming some Stravinsky...

THE TIR NA NOG MYSTERY SOLVED

When we put Tir Na Nog on our covertape, we didn't know what it meant. 'Land of the Dead', we pondered...?

'Ah!' we thought, 'our readers will know...'

TSK TSK TSK. 'Nog' isn't a word in Gaelic, or in any other language for that matter. Apart from Norweigan. OK, and Icelandic. Anyway, where you slipped up is that you should have been looking for the noun 'Og' – the 'n' prefix denotes 'the'. Tír na Nóg, therefore, means "land of the young". Nice try Sean, but no.

Ian Shaw
Edinburgh

TIR NA NOG MEANS "land of the young", OK? Ah, but there's a story behind it. It's something about a legendary Irish hero called Fiónn MacCuamhal (pronounced Macool) and his son Oisín (Oisheen) were walking through the forest after saving Ireland from... I dunno... the ninja bionic aliens or summat, when on comes this sexy chick. She says she's from a land where nobody grows old and she thinks Oisin is a ride. She takes Oisin with her for three years. However three years in Tír na Nóg is like 300 in Tír na Háit (land of weirdos) so when he came back his father was long dead. Oh and there's something about him falling off his horse and growing old and going to see Saint Patrick. In the game *Tír na Nóg* a location called *choc suil* means "eye mound" (so nobody gets confused to the meaning). That's good.

By the way, I thought the *Turrican 2* demo was crap and not a patch on *Turrican 1*.

Brian O'Higgins
Clonakilty, Co Cork

YOU WILL BE AWARE THAT in English we do not refer to 'a' owl, but to 'an' owl. The

same kind of thing is done in Gaelic with similar words, but the 'n' is added to the following word (the one that starts with a vowel) rather than on the end of the preceding word. Your friend Sean sounds like an Irishman, but seems to be sadly short on the Gaelic.

Al "The L Plate" Cooper
Lisburn, Co Antrim

THE STORY GOES THAT this warrior guy, Oisín, met a blonde called Niamh who was from a land where no-one grew old. (Dallas, probably.) Anyway, being a lecher, off goes Oisín to shack up with Niamh in this 'Tír na Nóg' place. Whatever he was at, he never noticed the time fly, so when he decides to visit home and see how all the lads are getting on without him, it's 300 years later and, not surprisingly, all his buddies have kicked the bucket. Well, for one reason or another he suddenly fell off his horse, aged 300 years, and subsequently died. Oh yeah, some bishop or other put in a bit that says that before he died he was baptised by St Patrick. In these enlightened days of course, no-one believes a word of it.

PS Do I get a fiver or a badge or something for this? (*No.*)

Dermot Friel
Roscommon Town, Ireland

Adam: *Well, as half the population of Ireland has written in to point out (thanks, by the way), we made a little 'boo boo' in our pathetic attempt to translate Gaelic on the AA75 covertape pages. Sean (whose fault it clearly was, of course) has been beaten round the head repetetively with an inflatable shamrock, and promises not to do it again. Who says Amstrad Action isn't educational? Pah!*

• Tir Na Nog doesn't mean 'land of the dead'. Oh, er, we knew that (ahem).

A Leading Propellor-Head writes

Who is this idiot Philip Ridgeon (*AA74*) and his virus? I suggest he's the one with the virus and it's in his head. Doesn't he know a virus is a program that attaches itself to other programs and can change or format a disk, erase programs etc. But they can't affect ROMs, being read-only, you'd need an Eprom and blower for that.

A virus is usually only found on hard disks or diskettes. The hard disk variety is lethal and can rewrite the F.A.T. (*File Allocation Table*) or delete sectors, change COM files and so on. The diskette variety, such as on the Amiga, usually either formats the diskette or erases needed data. It isn't feasible, from either a programmer's or a technical point of view, to have a virus on a tape game that could harm the CPC. I am a Freelance Software Engineer for business applications and a Systems analyst and I do all my own hardware installations, so I do know a little of what I'm talking about. I hope that sets other readers' minds at rest.

L V Townsend
Accrington, Lancs

Adam: *Cheers for that, Lavender. You can all relax now, folks. Experts agree there is absolutely no possibility of the AA cover tape harming your machine in any way, shape or form.*

Er, excuse me...

When I tried to load the *AA75* cover tape on to disk, the tape immediately stuck on the reading heads of my cassette player and wrapped itself round the inside of my machine. After untan-

gling it I tried loading two other tapes to find they worked properly. I then tried loading the cover tape again and immediately the tape entwined itself round the same place. Unfortunately this has buggered up my cassette system and I can only use disks from now on. Any chance of a refund?
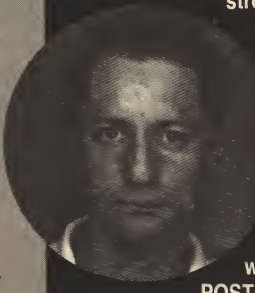
B Smith
Abingdon, Oxon

Adam: *Er, okay so there is one way the tape can harm your machine. It's one of those freaks of nature that occurs every now and then. I myself have been done over like this by an old Spectrum game and a Phil Collins tape. (Serves you right for buying Speccy games and Phil Collins tapes – ed.)*

The tape spaghetti shouldn't have gone so tight as to become unremovable, though, Belinda (better put your first name on letters, folks – remember, Adam is a loony – ed) unless you pressed Fast Forward during the 'wrapping' process. You did, didn't you? Come on, admit it. It should be pretty simple to get it fixed though. Either take it to a repair shop or – this is the dodgy one – have a go yourself. We can't believe that cheeky little covertape can't be tickled out with a little patience. Don't worry, we'll send you another tape.

Consoles are criminal

This Christmas a lot of kids with perfectly good computers will have received Sega or Nintendo consoles. Their brains will be suffering as a result. These consoles have no keyboard, no programming language, no mechanisms that will allow their user to learn about computing.

We live in an increasingly technology-based world, where kids that grow up without computer skills will be at a disadvantage in the future employment market. Kids who grow up in a household with a computer (particularly one as good for educational/serious activities as the CPC) will be the lucky ones.

Yet so many children now are being allowed to discard their computers in favour of facile games machines. How will a children learn anything of value or worth sat in front of a Megadrive or NES? They can't type in their own programs/routines, they can't experiment with BASIC (or any of the other programming languages), and there is no serious mind-expanding software at their disposal.

The price of the games is also a worry. Whereas CPC games can be picked up for £1 or less (*Big Box, Quattro* packs, *AA* cover tapes, etc), cartridge games cost anything from £20 to £50. How many children will turn to crime to finance their games-playing lusts? Even those that steer

clear of criminal activities will probably end up far less intelligent than those who 'play' on real computers.

Consoles are turning our children into vegetables. Let's not let it happen.

Peter Worley
Ilford

PETER'S POSTBAG

PETER WORLEY MUST BE a ******* peasy ********, if he thinks that full-price games should be scrapped because they're too expensive (*AA75*). He should try looking at the price for *Wing Commander 2* on the PC. And that game is definitely not a rip-off.

Sid Psycho
Abingdon, Oxon

I ENTIRELY AGREE with the points made by Peter Worley (*AA75*). What he says is completely true. Full-price games are just too expensive for the younger kids (who make up a whopping huge hunk of the games buyers) as on average they receive £2-3 pounds a week. After a few months a game that was £11 plus will come out under the Hit Squad label (or similar). Look at games like *Turrican, Rainbow Islands, Batman the Movie*, etc. The list goes on and on...

Mr & Mrs C Small
Kilmacolm, Scotland

• Here's one of those console thingies. Peter Worley reckons they're doing major league harm to our kids. Is he right?

WORLEY'S WORLD

This man Peter Worley has got some pretty strong opinions – but he's certainly generating lots of mail. Which is why we're giving him his own little slot in *Reaction*. If you agree or disagree strongly with what he says, write to: PETER'S POSTBAG, Reaction, at the usual AA address...

I RECKON THAT PETER WORLEY IS MAD, scrapping full price games indeed. I personally think that all computer games should be scrapped. Instead of playing computer games, we can all wear woolly hats, light a fire in the back garden and sing *Kum-by-ya*. One, two, three... "Kum by ya my lord, Kum by ya. Kum by ya my lord, Kum by ya. Kum by ya my lord, Kum by ya. Oh Lord, Kum by ya."

Narinderpal Singh Randhawa
Leamington Spa

Adam: *Mad, quite mad. Have a £25 voucher Narinderpal, and go and lie down in a darkened room for a few hours. Does anyone fancy arguing with Peter Worley's latest rant? Well don't bottle it up then – write to Peter's Postbag at the usual address.*
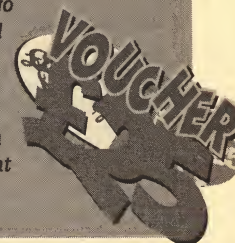
AA GUIDE TO FRANCE

Here's the first in a new series of *AA* guides to European countries, perfect for you 1992 Eurodudes, and tying in wonderfully with this month's cover feature.

Location: France is just across the Channel, only 90 minutes away by boat. Or 25 in a hovercraft. Or 8 hours doggie-paddling (though it may take longer, depending how fast you can swim).
Population: 57,623,087. Including lots of cycling onion-sellers in stripy shirts.
Language: Talk like you're really sleepy, and add the phrase "hee hor, hee hor, hee hor" to the end of each sentence.
Currency: Francs. You get around ten of these for a pound. So they're cheaper than Curly Wurlys.
CPCs: France has the biggest CPC market in Europe. Software houses include Infogrames,

Loriciel and Ubisoft. And some others.
What to see: The Eiffel Tower, the picture of the grumpy chick in the Louvre, the Arc de Triomphe. Er, and that's it.
Useful Phrases: "Je voudrais biber dix litres de bierré" (A small Coca-Cola please) "Ou etès les elephants, monsieur le conducteur?" (Have you got any new Ocean game?) "Ay, cochon-tête, allez marcher" (I would like to dance with your friend)
Things to do: Become an artist and hang around the cafés. Fall in love (bleurgh). Do the "hey waiter, have you got frog legs or is it just the way you walk?" joke. Spend some time in a French hospital.
Warnings: Don't mention Hastings. Oh hang on, they won that one didn't they? Er, don't mention Waterloo then (or Euston). Don't drink the water (gargle it instead, it's great fun!).
Famous Frenchies: Napoleon, General de Gaulle, that chap on *Rapido* who talks too fast.

HELPLINE

Feeling helpful? Need help? Can't get past the rhinocerous in *Revenge of the Turnips*? Trying to get hold of a firmware mannual or a TV modulator? *Helpline* is here for you.

Just send your name, address and phone number, and details of what you're after to: *Helpline*, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2AP. Please write on a postcard or the back of a stuck down envelope and keep it short or you won't get in (or you'll get cut to 'loadsagames').

Due to shortage of space, we prefer to only print a first name and phone number. If you want help contact the appropriate Helpliner – not us. And phone only in decent hours!

Piracy is not welcome: don't try it, you'll get booted off. Keep it legal, keep it cool, keep it on the straight and narrow. Yo!

Help please with *Sweevo's World*. How do you collect a 'BOO'. I have a problem with my TINS, 'BLOCK' and 'FULL'.
Angela, 0344 428053

Will swap one of these, all on disk. *Silent Service, The Vindicator, Trivial Pursuit Genius Edition, Trivial Pursuit A New Beginning, Purple Saturn Day* for *North and South, Jack Nicklaus Golf, F-16 Combat Pilot, Gunboat* disk only.
Nick, 0935 77381

PLEASE... can anyone tell me why, when we load a saved city (either at start of a session or during) that *Sim City* gives us a lot of nonsense in the information banner in the top half of the screen instead of city-name and costs etc? Help desperately required...!
Len or Lisa, 0602 293765

Wanted: MP2 Modulator for CPC6128. Will swap MICROSPREAD SOFT 1012 (disk) CPC464 (as new).
Sandor, 0253 53024

Wanted: *Thunderbirds*. Will swap for *Klax, Spy Who Loved Me, Way of the Tiger* or *Tackle World Class Soccer*. 1 for 2.
Gareth, 0247 473795 after 6pm

I have *Pro Ski Sim, Ghost Hunters, Guardian Angel, Cricket International, 4 Most Action, CORE, Ghostbusters, Footballer of the Year, Jack the Nipper, 3D Invaders, Enterprise* and *Take 4*. I will swap 2 for 2 of these: *Moonwalker, Ghostbusters 2, Spitting Image, Dragon Ninja, Chase HQ* and *Power Drift* (all budget versions). Also have *Trivial Pursuits (New Beg)* which I'll swap for *Turbo Out Run* or *Jack Nicklaus Golf*. (All games original & on tape.)
Daryl, 0376 49646 after 4pm

Wanted: *Final Fight, Laser Squad, Shadow Warriors, Ninja Commando* and *Dynasty Wars*. Will swap each game for 4 of these: *Dragon Ninja, Target Renegade, Cabal, Subway Vigilante, Joe Blade, Saigon Combat Unit, Tomcat, Metal Army, Knightmare, Quattro Combat, Bombjack 2, Space Harrier, AA tapes 1-5, 7-9, Airwolf, Aliens, Moonwalker*. Or swap for *Golden Axe* or 4 from *Platinum Collection*. All CPC464 tape.
Mark, 061 370 6626, 4-8pm

Please, can anyone tell me what finally kills the Nechromancer in *Sorcery Plus*.
Eileen, 0582 873267 5pm-9pm

Has anyone got cassette of *Sim City*? Will swap for *Dynamite Dux* or *Midnight Resistance*. Pen pals wanted to swap and lend games. Male 11-14. Must have CPC464.
James, 0233 632867

Wanted: *Turrican 1 & 2*. Will swap for *Bloodwych, Defenders of the Earth, Aliens, Cavemania* (tape). One for one swap.
Peter, 0372 458151 4.30pm-9pm

Will swap one of these (all disk): *Silent Service, The Vindicator, Trivial Pursuit Genius Edition, Trivial Pursuit A New Beginning, Purple Saturn Day*, for *North and South, Jack Nicklaus Golf, F-16 Combat Pilot, Gunboat* (disk only).
Nick, 0935 77381

Help! Has anyone got a 464 manual I can buy? Also I need a REC button for the 464 datacorder (*you what?*).
Eileen, 0582 873267

Books wanted: *Practical Machine Code Programming* by Steve Webb, and *Machine Code for Beginners on the Amstrad* by Steve Kramer.
Wendy, 081-304 4462

Needed desperately: *Bloodwych* instructions. Will swap for games.
Richard, 0232 763385 after 5.30pm

Wanted: AA60. Also Firmware Guide for 6128 plus.
Stephen, 0344 773785

Wanted: *Shadow Dancer, Crazy cars 1 & 2, Thunderbirds* and *Supercars*. Will swap for: *Turtles, X-Out, Forgotten Worlds, Gemini Wing, Red Heat, Toobin'* and *Silkworm*. All 464 cassette.
Philip, 09603 41356 after 5pm

Help wanted on *Castle Master*. I don't know how to get the key on the roof of the cavern. Also I require help on fixing the rest of the keys needed to complete the game.
Karl, 0204 399198

Offered: Limited advice on hardware problems.
David, 0793 532417

Wanted: *Turtles 2: the Coin-op*. Will swap for *Dizzy Panic* or pay reasonable price. Also wanted: pen-pal aged 10-16 to lend games for 464 (tape).
David, 0238 542094 (N. Ireland) after school hours

HELP! Has anybody got the listings ROCKY 1 (*AA35*) & TEN-PIN BOWLING (*AA49*) that they are willing to photocopy and send to me? Also, has anyone got the leaflet out of the covertape on *AA67* which they will sell me for a reasonable price?
Ross, 0642 482274

Wanted: TV modulator for CPC6128. Am willing to pay for reasonable postages costs this end. I want to run my 6128 through my TV. I am fairly desparate at this moment in time...
Harry, 0623 660022

Wanted: *Robocop 2* (cartridge) with box and instructions. Will swap for either *Switchblade* (cartridge), *Golden Axe, Supercars, Ghostbusters 2, Fists of Fury* (*Editi 2*), all on disk with instructions.
Chris, 0634 683852

Will someone swap their *Rick Dangerous 2* disk for my *APB* and *Cybernoid* tapes? Also wanted: AA back issues 1-48, 50, 51. Will pay a reasonable price.
Tim, 0689 829451 6pm-9pm

Has anyone got *Stop Press* and AMX mouse on disk to sell for £20, or a Rombo rombox, KDS 8-bit printer port and a De-cable drive switcher by ABD Holdings to sell for £10 each?
Darren, 0302 864730 after 6pm

Wanted: *Rick Dangerous 2, P-47 Thunderbolt, Prince of Persia* or *Navy Seals* (tape originals). Will swap for: *Last Ninja 2, Licence to Kill, Back to the Future 2, Indiana Jones & the Last Crusade* and *Temple of Doom*, or *Italy 1990*. Also help wanted on *Batman the Movie*.
Chris, 0752 844946

Wanted: Urgently need colour monitor for CPC 464. Will swap for GT65 Green Screen plus cash, or will buy for under £60.
David, 081-540 9011

Help needed on original 3D version of *Batman*. Where's the seventh bit of Batmobile. Using batmap in AA9.
Roy, 0977 675522

Broken hearted child needs a *Fruity Frank* cassette for his 464 computer. This was his favourite game which won't load any more. will gladly pay or swap.
Ricky, 0245 74347

I'm starting a PD library. Help, info and software greatly appreciated.
Paul, 0272 865343 4pm-10pm

Desperately needed for CPC 464: *European Superleague, North* and *South, Viz*. Will swap for a game from a list of twelve, including *Laser Squad* and *Shadow Dancer*.
Simon, 0782 51797

Wanted: *Continental Circus, Quattro Cartoon* and *Passing Shot* (all CPC tape). Will swap for: *Green Beret, Combat Lynx, Soul of a Robot, Army Moves, Fantasia Diamond, Forest at World's End, A View To A Kill, Adventure Quest* and *Shadow Fire*. (Or will swap three games for one.)
Aram, 081-551 4390

Wanted: *Golden Axe, Gauntlet 3, Joe Blade, Bloodwych, Hero Quest*. I will swap combat/sim games - *F-15, Acro Jet* and more, *Matchday 2, Driller, Dark Side* and *Armageddon Man* (all disk) and *Dizzy Collection* (tape). I have a 6128 (preferably on disk, but tape is okay.)
Chris, 0872 222942

Help wanted! Will anybody lend me the *Firmware Guide Soft 198* for a week or so. I will pay postage.
Andrew, 0642 474599

Has anyone got *Amsword* on disk?
Mark, 0272 604303

OI!

Helpline is for readers wanting help, tips or penpals, or offering any of the above. No money is to change hands, OK? This page is for *free* help only. If you send in an entry asking for money for your services you're wasting your time and a stamp – it'll be straight in the bin. On the other hand, send in a cheque for £5 and you could go in *Small Ads*...

PEN-PALS

Pen-pal wanted to swap and lend games.
James, 0329 661949 Mon-Fri 4pm-6pm

Wanted: Female pen-pals (but males accepted), 12-14.
Leslie, 0228 45324 6pm-7pm

Pen-pals wanted, all ages, male or female.
Dave, 0270 872217

25-year old Ghanaian Sunday School teacher and Accounting student, wants pen-friend to discuss car and cooker repair and textile designing with. (*Honestly, we're not making any of this up.*)
Benjamin Akoto Asare, Faith Baptist Church, PO Box 5595, Accra-North, Ghana

Charts

FULL-PRICE

1. **Dizzy's Excellent Adventures** C/masters
2. **WWF** Ocean
3. **The Simpsons** Ocean
4. **Turtles 2 - The Coin-Op** Mirrorsoft
5. **Terminator 2** Ocean
6. **Smash TV** Ocean
7. **Manchester United Europe** Krisalis
8. **Cartoon Collection** Codemasters
9. **Dizzy Collection** Codemasters
10. **World Class Rugby** Audiogenic

BUDGET

1. **Robocop** Hit Squad
2. **Moonwalker** Kixx
3. **Turrican** Kixx
4. **Chase HQ** Hit Squad
5. **Seymour goes to Hollywood** C/masters
6. **Heroes of the Lance** Kixx
7. **Batman the Movie** Hit Squad
8. **Power Drift** Hit Squad
9. **Op Thunderbolt** Hit Squad
10. **Quattro Fantastic** Codemasters

on the GRAPEVINE

CAPTAIN PLANET

Listen kids, the planet's in a right old two and eight. There's poison in the water, a hole in the sky and lots of other stuff like that. Face it, we need help. And hurrah, here it comes. It's some bloke in tights called Captain Planet. And oh look, he's got some mates with him (the Planeteers).

● Captain Planet is a kind of airborne Sonic the Hedgehog with hearts instead of rings. Apparently. We don't know. Sonic the what?

He'll deal with slime and sludge, tree-fellers and polluters. Hurrah for the Cap' and his mates in their ever-so-green cartoon series. And double hurrah cos they're appearing in a computer game from those Mindscape bods too.

Captain Planet came in just as this issue was going to press, and we've been having a little bit of a tinkle with it. It's a horizontally scrolling shoot-em-up sort of thing, and it looks quite spanky. We'll be giving it the full Action Test treatment next month, but in the meantime, remember

● This is probably a machine that cuts down forests or something.

you can also get Captain Planet videos, books, badges, aerosol deodorants, ivory necklaces and nuclear reprocessing plants. Hurrah! (Hardly – ed)

Captain Planet (Mindscape) is available now, priced £10.99 cassette and £15.99 disk. Look out for a full review next month.

BABY JO

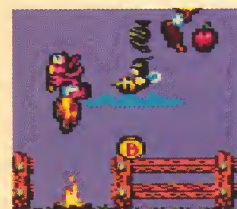Superheroes are getting younger all the time. Captain Planet, with his Pat Sharpe haircut and his boyish dimples, can't be any older than 23 or 24. But that's bus pass time compared to the new kid on the block. Da da da da... Baby Jo!

Baby Jo is the latest game from top French softies Loriciel to get distributed over here (in

● Baby Jo is a jumping, shooting, nappy-wetting kind of a game.

● It's gobbing at us. That blinkin' flower is gobbing at us! Is it? There's really no way for a flower to behave, is it? Daffodils today, eh?

this case, by fellow froggies Infogrames). The hero, Baby Jo, is, er, a baby called Jo. But no ordinary baby, dear me no. Jo has got loads of superhero powers, most of which come from his super diaper (that's American for nappy... the whole thing sounds a bit (n)iffy). Ho hum.

It's a horizontal avoid-em-up and it's difficult. Very difficult. We'll get a review to you as soon as we've managed to get off the first level. Which we'll do in time for next month's ish, we promise.

Baby Jo (Loriciel) is distributed by Infogrames and should be in the shops any time now. Check out next month's Action Test for the full SP.

DOUBLE DRAGON 3

In the world of ninja kick-em-ups the name Double Dragon is pretty famous. There was the first game, which recently took a major excursion through the budget charts, and the sequel Double Dragon 2 (also featured on a 1990 compilation). Now there's a third game, called (get ready for a shock) Double Dragon 3.

We haven't seen it yet, but we reckon there's going to be lots of fighting in it. Oh, and it's subtitled The Rosetta Stone, so it's probably got some stuff about Egypt, pyramids and hieroglyphics in it. Want to know more? Then tune in next month when we dish the dirt, or the gold dust, in our madcap action-packed Action Test
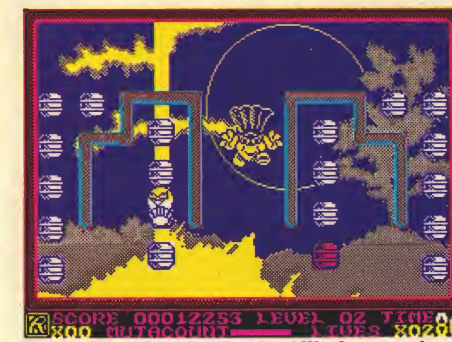

● Don't worry, this is a Spectrum screenshot. Ho ho ho. Ha ha ha ha. Spectrums. Aaaa ha ha ha haie haie. Got to laugh, haven't you?

Double Dragon 3 (Storm) is racing towards the shops, nunchuckas at the ready, even as we speak. AA will give it a going-over next month.

SUPER SEYMOUR

Crikey, three games about superheroes (is this the new games topic for '92?). This dude should be familiar to most of you. That Dick Turpin mask and cape can't hide the fact – it's that Seymour bloke, you know the one who went to Hollywood. In true Dizzy style, the chap's into more than just adventures. This is an arcade game. With lots of jumping in it. Hmmm...

Super Seymour (Codemasters) will be out some time in January, priced £3.99 cassette. Look out for it in next month's Budget Bonanza.

● "It's Bombjack," cried Prof Waring wandering past. "No it isn't." "I mean the costume looks the same." Dur. [Spectrum screenshot]

Next Month

So what have we got in store for you next month then, pop pickers? Eyeball this lot...

PUBLIC DOMAIN SPECIAL

What is public domain software? Where can I get it from? What are the 10 best PD programs available? We reveal all in our special feature.

ART GALLERY

It's been on holiday for a few months, but it's back, back, back. Next month cast your eyes over the latest AA readers' artistic endeavours.

REACTION

More angry letters, less poems, and Peter Worley waxing lyrical on the subject of aliens (!?). Don't miss it.

BUDGET BONANZA

We've done compilations instead this month, but in the March issue the budget section returns, with details of the latest original (Super Seymour) and re-release (Robocop) budgies. Hurrah!

ACTION TEST

Captain Planet, Baby Jo, Double Dragon 3, Hudson Hawk, and loads of others get the AA joystick-bashing treatment.

CHEAT MODE

The latest games, and some golden oldies, get the poking, cheating, Multifacing treatment from Phil Howard and his chums.

PLUS

The next instalment in our Graphic Adventure Creator series, the Balrog up to his adventuring tricks, PD software and arcade adventures in the Buyers' Guide, more Machine Code and, oh we don't know, loads of stuff.

Oh yes, and a jam-packed, marmalade-stuffed covertape. Blimey!

AA78 HITS THE STREETS ON THURSDAY 19TH MARCH. JOIN THAT QUEUE OUTSIDE YOUR NEWSIES TODAY (OR SUBSCRIBE INSTEAD IF YOU LIKE). HURRAH!

The Word Is Out

Blimey, there have been so many games raining in on us in the Christmas/New Year period that we still haven't got through 'em all. There's Ocean's **Hudson Hawk**, the great game of the crap film, which we'll be putting through its paces next month.

There's US Gold's **Mega Twins** and **Bonanza Bros**, Gremlin's potential yowser **Space Crusade**, **The Shoe People** educational thingy from First Class, and loads of others that we're expecting Mr Postie to be popping through the letter box any day now. Oh yeah, and **Rodland** from those bods at Storm. Crikey O'Reilly. Next time some smug Amiga owner tells you the 8-bit market is finished, bop them on the nose for being stupid.

● Hudson Hawk is a platform jobbie, and that crow. Tasteless or what? (I dunno, I haven't tried any – ed.)

So what else have we got to look forward to in 1992? Well there's Ocean's two film licences, **Hook**

(the Spielberg Peter Pan film), which is due out in March, and **The Addams Family** (let's hope the game's something like as fab as the film, eh?) which is due out a little while after that. Then there's **Robocop 3** on cartridge, which is being put together even as we speak. (Incidentally, the reason console games sometimes take longer to appear is that it takes a couple of months to manufacture the cartridges. Interesting, eh?) Oh yeah, and Ocean's bought the rights to the BBC cartoon **The Legend of Prince Valiant**, so we might well see that appearing on the CPC at some stage. Possibly.

Oh, and US Gold's game of the non-existent film, **Indy 4 - the Fate of Atlantis**, is also on its way (no confirmed

date on that one yet). Then there's **The Blues Brothers** (get ready for a review any day now). Then there's the French games on their way. And, er, then there's loads of other games that no-one's told us about yet (cos they're secret). Blimey!

● Waaa. It's a rotweiler, a flippin' rotweiler! Er, nice doggie, woof woof, I'll just go and get you a bone or something. Eek.

1992: THE FRENCH CONNECTION

Everyone knows that 1992 is the Big Thing coming up at the end of this century. But as the time for this economic revolution draws nearer, the press and the politicians are getting ever more vague about what it involves. So what is it, how will it affect our lives – and what does it mean for the CPC?

The European computer market is weird. Surely, if a machine is good it'll do well everywhere? Apparently not. Different nationalities take to different machines, er... differently.

Take the Speccy, for example. The British took this ghastly little beast to their hearts in the mid-'80s. So much so that it's been the biggest seller of all the 8-bit micros in the UK. Yet on the continent? Not a sausage. Those canny Europeans won't touch it with a bargepole.

The CPC is different. It's done pretty well in the UK since its launch, but nothing like as well as it's done in France. According to current industry estimates there are anything up to a million CPCs in France!

After France, Spain is the next strongest CPC market across the pond. Italy? Not many. Germany? A few more, but again the machine didn't really take off in the same big way it did in France and the UK.

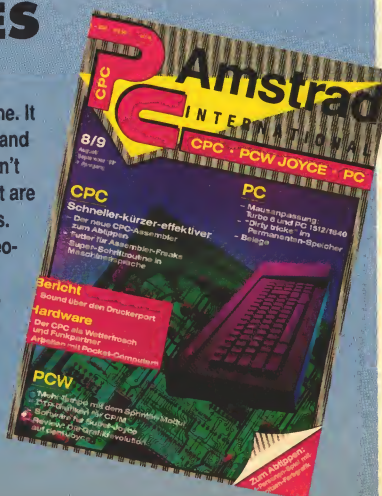But even though the CPC did well in France and the UK, the two markets are still quite differ-

ent. In the UK, approximately half of the CPCs out there are tape machines. The French, however, went almost exclusively for the 6128. That's partly due to the differences in the way the machines have been promoted in the two countries (Amstrad France works separately to Amstrad UK), but mainly because the markets are just so different.

The main difference is that the cassette is such a popular format in the UK. All three 8-bit machines – the CPC, Spectrum and Commodore 64 – will load from tape, and all publishers produce tape versions of games.

The French, however, don't seem to like tapes. Not one bit. Which is good if you own a disk machine, since there aren't the same problems getting hold of disk versions of games (many AA readers report trouble finding disk games). The bad side is that if you don't have tapes, how can you release games on budget?

Quite. Indeed, the French don't actually have a budget market to speak of at all. Which makes it all the more amazing that the CPC should still be such a popular format in France. After all, it's been assumed that the 8-bit machines in the UK have been kept going beyond their expected sell-by date by the strong budget market in this country. While full-price releases are dropping off, the budget market remains very active, especially with re-released full-price games. Why has the French market kept going without these budget sales?

The bad news...

Of course, even in France the CPC won't keep going for ever – no machine does. But amongst the French software houses there is some disagreement as to how long it will keep going. Ubi Soft, for example, is less than optimistic, as a spokesperson explained:

"The CPC market in France is still quite strong with certain titles, but it's declining a lot. When there is a good game, people will buy it and it will have good sales on the Amstrad, but it is declining and for us, as a publisher, it's not really worthwhile. It's very expensive to convert a game on to the Amstrad, and it's difficult to ge the money back.

"There is no budget market in France. I don't understand why there should be no budget market, it's not very logical to me. Maybe it's because the retailers don't want it, I don't know."

...And the good news!

That's only part of the picture. Loriciels' version is quite different:

"Basically, to be honest, Amstrad, at the moment, is still 40-45 per cent of our sales! Atari is 20 per cent, PC is 20 per cent and Amiga is only 10 per cent.

"It [the Amstrad market] should be declining, but Loriciels is still doing games for the CPC because it sells so much!

"The console has flopped! In some places now it's down to about ten quid, and it's doing really badly. They put the price much too high at the beginning, and it got a bad image."

We asked, "are you going to carry on producing games for the standard CPC?"

"Definitely."

Console calamity

Whatever the French software houses say about

● The story with the new Amstrads was the same everywhere. The console flopped, the Plus sold poorly. But still the CPC soldiers on...

the CPC market, everyone is agreed on the GX4000 and the Plus models. The GX4000 flopped. Things went a bit better in France for the Plus machines, much as they did over here, but Amstrad's relaunch was still something of a non-event.

The problems were much the same in France as the UK. The French software houses think the GX4000 cost too much compared to the competition – the Sega Master System and the Nintendo Entertainment System. True, the GX4000 did weigh in at up to £30 more than these veteran 8-bit machines. But a more telling factor was the lack of software support. You could then, and still can, buy Sega and Nintendo games anywhere. You can now buy them in Tescos, for heaven's sake! But where could you buy Amstrad games?

The problem seemed to be that Amstrad seemed to do only half a job in persuading publishers to write console games. Then there was so much slippage that few games were actually available by the launch date. Then publishers were reporting that the duplication process was taking months rather than weeks. The last straw was that when games did come out, it was in a kind of weedy trickle rather than a great rush. The things were simply not commonly available.

Of course, it doesn't take dealers long to get cold feet, and as soon as Dixons and the other major retail chains saw that the machine wasn't going well, they dropped it. And that was the end of the GX4000.

The Plus has done a little better, since it does more than just play (non-existent) console games. However, has it sold any more than the old CPC would have done?

Future prospects

It's very difficult to get accurate sales figures for computers. But there would appear to be towards a million CPCs in France and at least half that number in the UK. That's one hell of a lot of machines. And while many software publishers are muttering darkly about pulling out of the CPC market – particularly in the UK – can they really afford to ignore all those machines out there? Will they?

Just as interesting is the fact that the UK has a strong budget market, while France has a strong full-price market. Now with trade barriers soon to disappear, making inter-European trade (we like big words here) both easier and cheaper, maybe both the publishers and the computer users can benefit from 1992, and the Single European Market. Only time will tell...

GERMAN MAGAZINES

Amstrad PC International

This is an altogether weightier magazine. It doesn't just cover the CPC but the PC and the PCW too. Those Teutonic types don't really go for jazzy games coverage, they are more interested in serious applications.

The current issue of Amstrad PC International has an article on meteorology and weather satellites (what's the German for déjà vû? – see AAxx!), plus loads of stuff on programming and assembler language plus a natty-looking hardware project to build a sound digitiser. The German market may not be so hot for games publishers, but there's clearly a very active serious/hobbyist user base over there.

● Amstrad PC International covers the PC and PCW too, but the CPC gets the lion's share of the mag. ●

FRENCH MAGAZINES

Amstrad Cent Pour Cent

Amstrad Cent Pour Cent is France's equivalent of *Amstrad Action*. Like AA, it's the principle CPC-only mag, and it's been leading the market for years. It's got a similar mix of serious and games coverage to AA, and has letters, news, game reviews, game hints, listings, machine code tutorials (!), BASIC programming and various general features. The issue illustrated has an article on fanzines, which are apparently huge in France. There are, it seems, hundreds of the things. *Cent Pour Cent* has recently gone from monthly to bi-monthly (every two months). A bad sign? Possibly. The CPC is on the decline in France, but the market is still a big one – maybe French magazine publishers are obsessed with the 'sexier' 16-bit machines.

Multiformat mags

While *Cent pour Cent* magazine is apparently on the wane, the multi-format magazines in France still cov er the CPC well (unlike in the UK!) Magazines with CPC and console coverage include *Joystick, Joypad, Tilt, Micro News* and *Player One*. The CPC is not just still going in France, it's alive and kicking!

● Amstrad Cent Pour Cent, France's leading CPC mag, is hitting leaner times now...

● ...But the French multiformat magazines are still giving the CPC plenty of coverage – unlike the multiformat magazines in the UK!

SO WHAT'S 1992 ALL ABOUT, THEN?

1992 is all about the idea of a common Europe, a kind of superstate consisting of all the European countries working in economic unison. In theory, the European community will have no borders, a single currency and a single set of economic and defence policies.

In practice, though, things aren't that simple. John Major came back from the Maastricht summit being hailed as a conquering hero, but what has actually been achieved?

Well, we can look forward to a Europe without frontiers, but we won't be getting a common European currency just yet. And when it does arrive, Britain won't necessarily be using it...

All the other stuff, like political procedures, common enconomic and defence policies... well, don't hold your breath.

The main points of agreement are still vague, and

it's going to be years before any of them will come into force.

So is '1992' all a big con, then? Up until last year it was being hailed as a revolution in Europe, the shape of things to come. Now it's just looking like another great heap of Euro-twaddle, destined to be forgotten about by the time it's implemented.

But Europe is slowly opening up as an international marketplace. The removal of international barriers is going to make trade between countries both easier and cheaper. Many British software houses already make a tidy sum out of the strong CPC market in France, and British CPC owners can expect to see more French imports in the future.

Although the full political implications of 1992 may take several years to filter through the process, the commercial benefits could be felt a great deal sooner.

Parlez-vous Français?

France might have the biggest and most active CPC market in Europe, but what good does it do us over here if all the software is in French?

Fortunately for us, English is more commonly spoken in France than French is in this country.

And most French games/programs come with English instructions too. Take a look at most arcade games and you'll realise that the gameplay usually speaks for itself. As long as the manual can tell you what's supposed to be happening, you can work out the rest.

The problems arise with technical programs or adventure games, where there may be on-screen instructions or menus. Then, it's a question of whether the software house concerned thinks it's worth doing a special English

version – which is bound to involve quite a lot of reprogramming.

There's another problem too. A French software house will need to come to some arrangement with a UK company over distribution before it can sell its games over here. Needless to say, distribution in the UK costs money, albeit not necessarily any more than it would in France. On top of that, though, are the various taxes and duties levied on imports.

That last factor is the one most likely to be affected by '1992', and it may make the difference between French companies exporting their software and simply not bothering.

UBI SOFT

Ubi Soft is much less keen on the CPC than Loriciels, but still proposes to produce CPC games when the right title comes along.

Certainly, Ubi Soft has scored some notable successes in the UK when it's decided to distribute stuff over here. The interest in the epic role-playing adventure *Iron Lord* was huge, even before an English translation was prepared. And the futuristic role-playing game *BAT*

● *Equinoxe* – serious software from Ubi Soft.

scored a Mastergame in *AA* and also did well with the public.

More recently, Ubi Soft has produced *Equinoxe*, (83%, AA75), a fascinating new music package for the CPC. It's the first serious release from a major publisher for some time. Will there be any more? We shall have to wait and see. But maybe European publishers will wake up to the fact that the CPC market may be twice as large once Europe becomes a single economic community. It's a nice thought.

LORICIELS

This is one French company that doesn't think the CPC is on its way out! With something like 40 per cent of its total software sales on this one format (twice as much as any other single format), Loriciels is not only "definitely" continuing to produce games for the CPC, it is looking to distribute them in the UK. First to be released will be *Baby Jo*, but two more titles in the offing – subject to distribution deals being struck – are puzzle game *Guardians* and shoot-em-up *Thunderburner*.
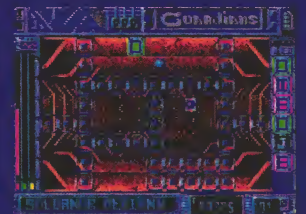
Loriciel hasn't quite given up on the console, either. Look out soon for the long-awaited *Copter 271* and *Panza Kick Boxing*. More on these hot new titles when we have them.

● *Baby Jo* will soon be available in this country – Loriciels still has great faith in the CPC.
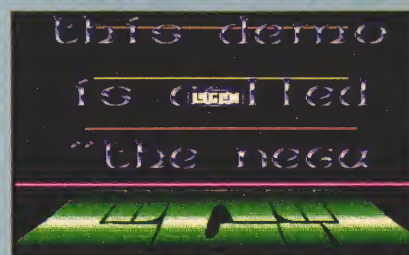
● *Baby Jo* is an ultra-cute platform game, featuring a little pink tot in nappies...

● *Guardians* is an unusual arcade puzzle game where you have to match blocks.

● *Thunder Burner* is a 3D shoot-em-up where the landscape scrolls towards you.

● The secretive French 'Logon' team have produced an amazing demo mixing text, graphics, colour and amazing scrolling!

SHOW OFFS!

Writing demos seems to be a funny way of spending your time. After all, you can't do anything with them but look at them, and you can't make a living at it!

Nevertheless, programmers all over Europe are hooked on demo-writing. The basic idea is that you produce sequences containing animated graphics and sound more sophisticated that anyone thought was possible, in a continual bid to confound both your mates and the machine's designers!

Of course, some demo-writers are also hoping to catch the eye of a software house on the lookout for new programmers... many people think that being a professional games programmer is the most glamorous life possible!

The standard of demos in the UK is high, here as some from the continent. If we saw these techniques in a game we'd be stunned! The problem is, of course, that they take up loads of memory to run – all the memory that you'd need for the game itself...

Still, the growing flood of excellent demos from the continent shows that there is a highly active, enthusiastic and skilled user base out there. The CPC may be a few years old, and in the 'autumn of its years', but with so many fans it could go on for ages yet.

● Elmar Krieger of Germany is the programmer behind this effort. As with all demos, you really have to see it moving.

Forum

A aaarrrghh! Are you being drive round the bend by technical problems you simply can't sort out? Write to *Forum* and our resident boffin ADAM WARING will try to help. Write to: Forum, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW

We have the technology

I have a 464 and I have seen foot pedals and a steering yoke available. For my GCSE Technology project I intend to try and design something similar. I am quite desperate for any information about wiring and circuits. Can anyone help?

Chris Shipley
Driffield, Yorks

The devices you mention work pretty much the same way that joysticks do, only with the inputs wired to different types of switches.

To do something similar consists basically of wiring the switches in your weird and wonderful widgets to the normal joystick inputs such as up, left fire etc.

Actually, you have 12 of these things to play with as the ports are wired for two joysticks, each with four directional inputs and two fire buttons.

Armed with this information and a bit of patience, you should be able to make something pretty whizzy!

Joystick port pin-outs

```
   1   2   3   4   5
   •   •   •   •   •

     •   •   •   •
     6   7   8   9
```

PIN				
PIN	1	UP	PIN 6	FIRE 2
PIN	2	DOWN	PIN 7	FIRE 1
PIN	3	LEFT	PIN 8	COMMON
PIN	4	RIGHT	PIN 9	COM
PIN	5	SPARE		

Ins and outs

I am the proud owner of a 464 Plus machine and if possible I would like your help please.

As you know the Plus range of machines do not include the ¦TAPE.IN, ¦TAPE.OUT, ¦DISC.IN and ¦DISC.OUT commands. Is it possible to produce these commands using an RSX command?

David Madden
Farnbourough, Hants

Although the Plus machines cannot use the IN and OUT extensions, they are able to use the ¦TAPE and ¦DISC commands. The easiest way to do what you require is to issue the appropriate command before saving or loading data.

However, if anyone would like to submit a bunch of RSXs to make these commands fully operational on the Plus, then Type-Ins is the place to write...

One liner

I have a DMP2160 which has recently failed to print one line of dots in each character. My documents are now unreadable and I am desperate for a quick and easy solution.

I have changed the ribbon but this hasn't helped. Can I replace something cheaply for myself or is it necessary to spend a fortune on a shop repair? Could there be something wrong with my 464? Is there any way you can help?

Alex Woods
London

I'm afraid that the printer head is broken. A 9-pin printer works by firing a set of 9 pins (erm, that explains why it's called what it is) to form the characters on the paper. Each pin is fired by an miniature electromagnet, and I think it's one of these that is broken.

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

● Got a print-out likethis? Chances are your print head is broken. There's nothing for it but a trip to the repair shop...

There's only one thing for it, I'm afraid, and that's to replace the print head. All print heads do wear out after a while, and yours has had its day.

You should be able to get a local computer store to order the part for you, and they should be able to fit it, hopefully without you having to smash the piggy bank!

Anyone for a swap?

When writing programs I invariably use full string titles during the early stages in order to make it easier to debug.

During recent session I used the string expression 'swap' which generated a 'Syntax error' message. On listing the offending line I noticed that the expression had printed in upper case indicating that 'swap' was a keyword.

I have since tried just about every combination of commas, semi-colons and brackets to get this new command to do something useful, but do far its only purpose seems to be to generate a 'Syntax error' message.

Please can someone put me out of my misery and tell me if it actually does anything and if so, what?

M Brooker
Luton

The SWAP command's full title is WINDOW SWAP which is probably why you couldn't find it. It's purpose is to swap the the output between two text windows.

So if you wanted to swap the output between windows zero and one you'd use the command:

```
WINDOW SWAP 0,1
```

Coded questions

Upon my fast and wonderful journey through the land of machine code, a number of exciting queries have leapt up shouting: "Write to *AA*! Write to *AA*!"

1. The refresh register seems a bit predictable. I want a less boring random number. Where can I get one?

2. I am in danger of disembowelling my CPC with a moist frog due to excessive frustration. Only you can save it by helping me. I need to multiply two large numbers (i.e. two bytes long) together in machine code.

3. In machine code I understand that a negative number is shown by setting the most significant bit high. Can you explain how this is affected by multiplying and whether the number will stay negative?

4. My trip through the world of machine code is slowing and needs speeding up Perhaps you, in your infinite wisdom, could recommend a good, quite advanced book on the subject that I could use to press the accelerator.

5. I have Arnor's Maxam assembler (which is very good) and would like to know whether it's possible to disassemble code into the editor to a BASIC/assembly language program and not just to the printer or screen. I have contacted Arnor but they say you cannot. Could a far more able coder be able to solve my problem?

Neil Stewart
Bridgewater, Somerset

1. Proper random numbers are incredibly complicated and require horrendously complicated maths routines to produce numbers that appear to be random (and even then they're not actually truly random). Within machine code I've always found it far easier to use the refresh register, especially if it's just for games or an application like that.

If someone has a simple way to come up with random numbers, then let the world know...

2. Blimey, you don't ask for much, do you? Multiplication in machine code is another pain. Basically you have to take into account that multiplication of two 16-bit numbers will yield a 32-bit result.

Repetitive addition is the way to do it. One of the numbers should act as at as a counting loop, and the other should be constantly added until the sum is completed. Here's a simulation in BASIC:

```
10 input n1,n2
20 n3=0
30 IF n1=0 THEN PRINT n3:STOP
40 n3=n3+n2
50 n1=n1-1
60 GOTO 30
```

3. Again this would have to be taken into account by your multiplication program.

4. Keep on reading the machine code series. It should keep you on your toes!

5. It's not possible to my knowledge. Can anyone prove me wrong...?

Screen shrinking

I own a 464 Plus and I am trying to write my own game. I have a couple of questions I wish to ask.

1. How do you cancel the actions of the Control, Shift and Esc keys reseting the computer as in a lot of new games?

2. In some games, eg Dizzy 4, the border has been enlarged and the main game screen looks as if it has been shrunk. How is this achieved?

I'm fairly new to computing and *AA* has been a help!

Alan Curran
East Linton, East Lothian

It's only really possible to get rid of the reset keys using machine code. Every 50th of a second the computer generates an interrupt and stops what it's doing. It takes the opportunity to do things like play music, scan the keyboard and check for a reset.

Should you get into machine code, the way to prevent the reset keys from working is to stop the interrupt routine or rewrite it in such a way so that it doesn't do the reset check. The

interrupt routine resides at address &38 and putting the byte &C9 (for a RET instruction) will prevent the routine from being carried out. This does mean that the computer won't do any of its other 'housekeeping' routines, though.

2. The screen has actually been shrunk to aid the conversion of games originally written on the Spectrum to work on the CPC. The Speccy has a smaller screen, and so by reducing the screen display to this size on the Amstrad it's possible to port games across more easily.

It's done by sending a couple of instructions to the video chip. Something a little like this:

```
10 BORDER 6
20 OUT &BC00,1
30 OUT &BD00,32
40 OUT &BC00,6
50 OUT &BD00,24
```

This sets the screen to be Speccy size; 32 characters wide by 24 deep. Alter these values to make the screen whatever size you desire. Some quite flashy screen clearing effects can be made with a bit of experimentation.

Is that clear

If, like me, you own a 464 and get annoyed with not being able to use programs written in BASIC 1.1 then this tip may be of use. Often the only difference is a few CLEAR INPUT commands. This can be solved by replacing them with CALL &BD19.

Is it possible to to get a lead made up so that I can link Plus peripherals to a CPC? The reason I ask is that I intend to upgrade to a 6128 Plus and with a Multiface II I'd like to transfer all the programs to disk.

Grant Taylor
Rosyth, Fife

There are widgets available to allow you to connect standard CPC peripherals to a Plus, but not, as far as I'm aware, vice versa. Technically it's perfectly possible, If anyone's come up with such a converter, then I'm sure Grant would like to hear about it.

In control

While experimenting with my CPC464 I discovered something that might be of interest to other readers. Firstly, type in a short program like this:

```
10 CLS
20 MODE 1
30 PRINT "xHELLO"
```

Replace the 'x' by holding down CTRL and pressing one of the letter keys. A character should appear. When the program is run, weird things happen. For instance pressing CRTL 'G' causes the computer to beep, CTRL 'X' changes the colour around the word 'HELLO'. There are plenty of other effects too!

Christian Bridge
Macclesfield, Cheshire
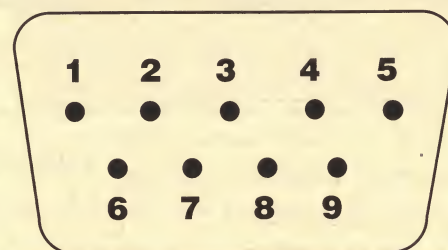
What you've stumbled across are

Disk list

You have, in the last few months, given a couple of Type-Ins that can print a catalogue of the files on a disk. It is possible to get such a list using the standard utilities supplied with the CPC disk drive. It uses the commands of the CP/M operating system supled with CPC disk drives and so is probably less well known than in Amsdos. Try the following:

Insert your CP/M system disk into the disk drive and type ¦CPM. You will get an unpleasant light-blueish screen in mode 2 and the CP/M prompt A>.

Hold down the CTRL key and press 'P'. From now on you will get a printed copy of everything that appears on the screen – provided your printer is connected and on-line. Press CTRL 'P' again to switch it off.

Type DIR. A list of file names will now appear on your screen and your printer.

(DIR is CP/M-speak for CAT.) Repeat this for any other disk you want a printout of.

The slight downside of this method is that the DIR command in CP/M does not tell you the file sizes or the free space that you get with typing CAT. This can be overcome by copying the CP/M program STAT.COM onto your disk and then typing the command STAT *.* instead of DIR. This gives a lot more information about the disk and its files.

Sadly the info in the user instructions is very brief, and does not tell you what the columns "Recs" and "Ext" mean. Any ideas?

Paul Halliden
Salisbury, Wilts

Thanks for the tip. I have no other information about the way that Stat program works. Perhaps someone else can help.

Basic editing

I have a hint for any budding BASIC programmers who write fairly substantial programs. It isn't actually all that complicated at all but I haven't seen it anywhere before.

One thing lacking from the CPC's version of BASIC are really extensive editing features. Sure, you can renumber lines and edit them one-by-one, but what you need for some of those big programs is some real editing power.

Any text editor that can import/export ASCII files can edit a BASIC program. To do this, simply save your BASIC program with the command:

SAVE "filename",A

The 'A' suffix is the important bit – this saves the BASIC program as an ASCII text file

rather than the normal BASIC format that a word processor would find unrecognisable.

Now all the features normally available in your word processor for text files can be used from your program. If you have a spell checker you can even check for typing errors by adding the BASIC keywords to your dictionary.

When you've finished, just save the file as ASCII and you'll be able to load it as a BASIC program. I hope some of your readers find this useful!

Damon Shultz
Sellicks Beach, Australila

Thanks for that, Damon! A useful little tip for all those BASIC programmers out there.

shortcuts to producing control codes directly within text. Here's a full list of what's available:

CONTROL KEY Code		PARAMS	EFFECT
0	@		None
1	A	0-255	Print symbol given by parameter value
2	B		Turn off text cursor
3	C		Turn on text cursor
4	D	0-2	Sets the screen mode
5	E	0-255	Sends parameter to the graphics cursor
6	F		Enables the text screen
7	G		Bleeps
8	H		Move the cursor right a character
9	I		Move the cursor left a character
10	J		Move the cursor down a line
11	K		Move the cursor up a line
12	L		Clears the screen
13	M		Moves the cursor to the left edge of window
14	N	0-15	Sets the paper colour
15	O	0-15	Sets the pen colour
16	P		Delete a character
17	Q		Delete characters between left hand edge of window and cursor position
18	R		Delete characters between right hand edge of window and cursor position
19	S		Delete characters between start of window and cursor position
20	T		Delete characters between end of window and cursor position
21	U		Turn off text screen
22	V		
23	W	0-3	Sets graphics mode: 0=normal, 1=XOR mode, 2=AND mode; 3=OR mode
24	X		Swap paper and pen colours
25	Y	0-255	Create a user-definable character, equivalent to using the symbol command. Takes nine parameters
26	Z	1-80	Set window. Takes four parameters, the first two set the left and right hand edges and must be between 1-80, the next two set the top and bottom and should be between 1-25

Behind bars

Q How do you print up a single 'bar' character without typing PRINT CHR$(211)? Several programs I have typed out on my computer have been left in mid-line because I can't find this symbol. Please help!

David Davis
Walsall

A *Easy! The '|' character is obtained by pressing SHIFT and '@'. It's actually printed on the keyboard, but with a gap in the middle.*

Time for interruptions

I have a few questions to ask and I hope that you will be able to answer them. Here they are:
1. Is it possible to create a real-time clock in BASIC which can run independently while another program is running?
2. Is it possible to change the media of a disk within its tracks, i.e. so that the first few tracks are data format, followed by a few tracks as system format and then going back to data format again? (I know it's possible as DISCKIT3 gives

this information when it occurs.)
3. What is 'protected binary'?
4. Some of my software files come up, when I catalogue them, as FILENAME.BAS*. What is the significance of the asterisk?
5. Is it possible to link an electronic keyboard (such as the Yamaha PSR-18) to my 6128 via the earphones socket of the keyboard and the tape socket of my 6128?

Shane Kelly
Draperstown, Co Derry

A *1. The Amstrad computers have a built-in set of interrupts that can be used from BASIC. These allow a program to be interrupted and another subroutine to take over. If you set the interrupt routine to update a clock display then that should do pretty much what you want.*

The EVERY command is used to set the interrupts going. It works in increments of a 50th of a second. A program not unlike this is the sort of thing you need:

```
10 secs=0
20 EVERY 50 GOSUB 1000
30 REM The rest of your program goes here...

1000 secs=secs+1
1010 LOCATE 1,1
1020 PRINT secs
1030 RETURN
```

Obviously it needs some work to do exactly what you want, but that should start you off.
2. It sounds horribly complicated and I'm not sure why you'd want to do such a thing. But, if anyone has come up with a way to do it then I'd be delighted to spread the word.
3. Protected binary is a block of machine code that's been saved using custom routines so that it cannot be accessed from normal BASIC programs; you'll need to use a special machine code loader to run it. Commercial games tend to have their code protected, and hackers and pirates from copying the program – publishers reckon on losing millions to piracy.
4. The asterisk means that the file is read-only and cannot be erased. It's a safeguard to prevent you accidentally erasing important data. Use the CP/M SET command to protect your own files.
5. I guess you could, but it wouldn't serve that much purpose as far as I can see. You'd be able to perhaps digitize music with some sound sampling software, but you won't be able to transmit data to control the synth if that's what you're after.

AA

● Can you link up an electronic keyboard to your CPC via the earphone/tape socket of your CPC? Probably, but would it do you any good?

Mastering machine code

Welcome to part VI of Mastering Machine Code. Did you get lots of games for Christmas? And have you played them to death by now? Well, how about writing your own? This month we look at some routines to move sprites around the screen. ANDY PRICE delves deep into his assembler...

What is a sprite? Well, when playing a game, the character you control and the baddies you have to fight, be it a plane or a person, is a sprite. A sprite is just a lump of memory displayed in graphical form on the screen.

Wouldn't it be a great idea if you lot, instead of using letter characters for your home-made games, could design your own little sprites on the screen in full colour and then move them about? There is no great secret to doing this, it is just a complex variation on the **LDIR** instruction (to move blocks of code) which was discussed in the last instalment.

The sprite utility
Listing One is a comprehensive sprite utility which allows you to:
• Design your sprites on the screen, or in any art package which will let you load your screens from BASIC – and the sprite utility will let you move any part of that screen (a sprite) around your game screen.
• Design sprites of any pixel width and height.
• Display your sprite set at any time.
• Copy your sprite screen into the utility's sprite bank.
• Accomplish all of this from BASIC or machine code, using **CALL** commands from machine code or RSX commands from BASIC.

Explanations of the program, line by line, have been written into the assembly code. Also, a demonstration program has been written into the utility to show you how to use the sprite program.

The utility has several RSX commands, which were the subject of part IV. You can add your own RSX commands at any time to improve the program, if you wish to do so.

Devpac users
If you've got a copy of Devpac from the *AA71* covertape, you can use the listings on these pages directly. To get to grips with the program properly, though, you may want to take advantage of Hisoft's special offer on the Devpac manual (which we couldn't covermount!). Send a cheque or postal order for £9.95 to: **Devpac Manual Offer, HiSoft, The Old School, Greenfield, Bedford MK45 5DE.**
The price includes postage and packing.

The commands, how they work
The program has four routines built into it, which are accessed by simple RSX commands. They are as follows:

|SPRBANK This saves the screen on which you designed your sprites into memory at address &4000. From this address the utility will grab the sprites you have chosen to use and display them on the screen.

|DISPLAY This displays the sprite bank. This is written into the program merely to act as a reminder.

|SPRITE This is the core of the utility. This piece of code allows you to manipulate your sprites around the screen. Its use is a little more detailed than the other commands, but allows pixel precision (dependent on the MODE) for placing your sprites on the screen, just like the software houses do. The command takes the following format:

|SPRITE,height,width,store,address

The parameters it takes are **height**, which is the height of the sprite in pixels, **width**, which is the width of the sprite in pixels, **store**, which is the address where the sprite is stored and **address**, which is the screen address where the sprite is to be placed.

e.g. **|SPRITE,20,35,&4000,&c000**

This will place a sprite stored at address &4000 on to the screen at address &c000 which is 30 pixels high and 35 pixels wide.

In MODE 0, if a width of 4 is specified, that will print a sprite 8 pixels wide. Thus if 1 is passed, a sprite 2 pixels wide will be printed. In MODE 1, a width of 2 is 8 pixels wide and in MODE 2 a width of 1 is 8 pixels wide. This is because of the way more bytes are used to store a pixel in MODE 0 than in MODE 2 due to the chunkiness of the pixels in MODE 0. The height is always pixel precise, no matter which MODE you are in because there are identical numbers of pixels, height wise, in any MODE.

Parameter passing – numbers
So far, with the CALL command and RSX com-

mands, we have only dealt with using addresses to call machine code routines. The CALL command can take more than one parameter and so can an RSX (which is just an extension of CALL).

These parameters are passed using the index registers, that is using IX+0 to IX+255. Let's take an example CALL command with one parameter:

CALL &4000,&3020

This command calls address &4000 with the parameter &3020 (an integer variable). The integer is a 16-bit integer. When the routine at &4000 is called, the computer stores the number of parameters passed in the accumulator.

The integer &3020 will be stored in the index register, the low byte being stored in **IX+00** (&20) and the high byte being stored in **IX+01** (&30).

However, what if there is more than one parameter, as in the **|SPRITE** command? Well, this is where a little bit of thinking is needed, because it is very easy to make a simple mistake which will crash your program. Let us take a simple example:

CALL &4000,&3020,&6000,&2000,&10

All parameters are still passed into the index register, but in a rather weird way (well, it is to me!). They are stored as follows, all in low byte – high byte order:

&2000 passed into IX+00 and IX+01 (low byte followed by high byte)
&6000 passed into IX+02 and IX+03
&3020 passed into IX+04 and IX+05
&10 IX+06 holds &10 and IX+07 holds &00 (treat as &0010)

Parameter passing – strings
To pass strings on a 464 is a different matter to doing so on a 6128, but in principle the same applies to both systems and I will explain both.

If a string is needed to be passed, the actual string is NOT passed but the address where the string is stored IS passed. On a CPC 6128 it is just a matter of passing the string in quotation

Code & Chips
Got any machine code queries? Things you don't understand? It doesn't matter how stupid the question, how basic your knowledge, write to:

**CODE & CHIPS
AMSTRAD ACTION
BEAUFORD COURT
30 MONMOUTH STREET
BATH
AVON BA1 2BW**

marks, but for the CPC 464 it is a little more long-winded. For the 464, a **string descriptor** has to be used, which is the @ sign.

e.g. CPC 464

```
a$="ANDY PRICE"
CALL &4000,@a$
```

e.g. CPC 6128

```
CALL &4000,"ANDY PRICE"
```

The @ symbol passes the address of the string, rather than the actual string. Thus, if you typed **PRINT @a$** in BASIC, it will print the address where the string is stored, for machine code purposes.

The address passed is stored in the same way as the integer is stored, as explained above. Thus, the more strings you have, the more parameters are passed and the more index registers are used, as shown above.

This method was invaluable for creating the Sprite Utility.

Sprite demonstration
Listing Two is a demonstration of how the utility can be used. The codes on the left of the listing are *Typerighter* code, the program used by *Amstrad Action* to let you check your typing when typing in BASIC listings from *Type-ins*.

To use the program, first type the program in (don't type in the codes – they're only for checking if you use *Typerighter*) and save the program. Secondly, type in the sprite utility and assemble it. Then re-load the demonstration program and RUN it.

LISTING ONE: SPRITE UTILITY

```
        ORG #9000
        ENT $

        ; LISTING ONE
        ; PROGRAMMERS TOOLBOX
        ; SPRITE UTILITY
        ; (c) AMSTRAD ACTION

        LD HL,WORK_SPACE    ; buffer for the Kernal's
                            ; use
        LD BC,COMMAND_TABLE ; address of command
                            ; table
        JP #BCD1            ; introduce RSX
                            ; table and return to
                            ; BASIC once completed

COMMAND_TABLE:
        DEFW NAME_TABLE     ; address of new command
                            ; table
        JP SPRBANK
        JP DISPLAY
        JP SPRITE

WORK_SPACE:
        DEFB 0,0,0,0        ; for use by the
                            ; Amstrad's Firmware

NAME_TABLE:
        DEFM "SPRBAN"
        DEFB "K"+#80
        DEFM "DISPLA"
        DEFB "Y"+#80
        DEFM "SPRIT"
        DEFB "E"+#80
        DEFB 0

; Copy sprite screen to #4000

SPRBANK:
        LD HL,#C000
        LD DE,#4000
        LD BC,#3FFF
        LDIR
        RET
```

```
; Display stored sprite screen
DISPLAY:
        LD HL,#4000
        LD DE,#C000
        LD BC,#3FFF
        LDIR
        RET

; Routine to print sprite on screen
; |SPRITE,height,width,store,address
; HL holds address of sprite in memory
; DE holds screen address to place sprite
; (IX+06) - width
; (IX+04) - height
; (IX+02) - stored address
; (IX+00) - display address

SPRITE:
        LD L,(IX+02)    ; Stored address of
                        ; sprite
        LD H,(IX+03)
        LD E,(IX+00)    ; Screen display address
                        ; of sprite
        LD D,(IX+01)
        LD C,(IX+04)    ; Height

OUTER:
        PUSH HL
        PUSH DE
        LD B,(IX+06)    ; Width

INNER:
        LDI             ; Print a line 'width'
                        ; pixels wide
        INC C
        DJNZ INNER
        POP DE
        EX DE,HL
        CALL #BC26      ; Next line of screen
        EX DE,HL
        POP HL
        CALL #BC26      ; Next line of sprite
                        ; table screen
        DEC C
        JR NZ,OUTER
        RET
```

LISTING TWO: SPRITE DEMO PROGRAM

```
(NvAv) 10 CALL &9000:'·initialise·RSX's
(CxBj) 20 RANDOMIZE·TIME:'·very·random·seed
(CxAI) 30 MODE·0
(Ktdq) 40 FOR·x=1·TO·200
(LvAu) 50 MOVE·(RND*640),(RND*400)
(JwBI) 60 DRAW·(RND*640),(RND*400),(RND*14)+1
(OmAj) 70 NEXT
(PnAl) 80 |SPRBANK
(DsBp) 90 MODE·1:PRINT"Press·a·key·to·see·sprite·
           bank"
(GpAw) 100 CALL·&BB18:MODE·0:|DISPLAY
(NiBn) 110 FOR·x=1·TO·2100:NEXT:'·7·second·pause
(FoBI) 120 MODE·1:PRINT"Sprite·demo........."
(BxBI) 130 PRINT:PRINT"There·was·no·space·to·draw"
(JiBp) 140 PRINT:PRINT"detailed·sprites·so·I·created"
(BrBn) 150 PRINT:PRINT"the·mess·you·saw·earlier·and"
(CqBr) 160 PRINT:PRINT"they·will·be·treated·as·
            sprites"
(MiBj) 170 PRINT:PRINT"PRESS·A·KEY":CALL·&BB18
(MvAl) 180 MODE·0
(BpAm) 190 FOR·y=1·TO·4
(MqAk) 200 CLS
(GwAr) 210 FOR·x=1·TO·40
(FwBI) 220 |SPRITE,15,25,&4000+(x*2),&C000+(x*2)
(GqAk) 230 NEXT
(CtAk) 240 NEXT
(KgBI) 250 LOCATE·1,12:PRINT"EXPONENTIAL·SPRITES"
(DtAu) 260 FOR·x=1·TO·3000:NEXT
(MwAu) 270 CLS:place=&C000:now=place
(GjBi) 280 FOR·loop=1·TO·20:GOSUB·340
(DwBo) 290 place=place+&50:now=place:NEXT·loop
(DuBj) 300 LOCATE·4,12:PRINT"FALLING·SPRITE"
(MwAu) 310 FOR·x=1·TO·3000:NEXT
(IjBk) 320 CLS:PRINT"End·of·Demonstration"
(KuAk) 330 END
(DxAq) 340 FOR·x=1·TO·7
(LvAv) 350 |SPRITE,90,30,&4400,now
(NnAo) 360 now=now+&800
(PuAj) 370 NEXT
(OtAm) 380 RETURN
```
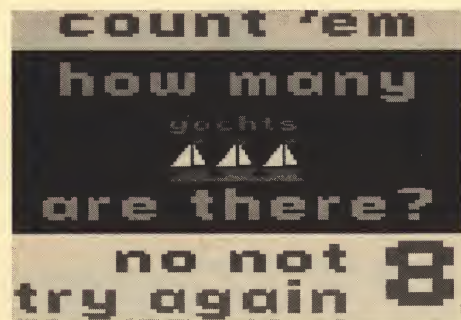
count 'em
how many
yachts
▲▲▲
are there?
no not
try again 8

● Oh darn, got it wrong. Now let's see... one... two... three... That's it, three! Ha, this is easy.

dog

use < > to alter size

● Aw, how sweet. This little chap stands for the letter 'd'. And he wags his tail a lot.

spell it

● Oh no, the poor little clown is sad. But he'll cheer up when you spell a word correctly.

Picture Book

£12.95 cassette, £15.95 disk ● Triple R Education ● 1 Percy Street, Sheffield, S3 8AU

When was the last time some decent educational software came out for the CPC? Er, not many months ago actually (*Fun School 3*). *Fun School 4* should be out any day now. And in the meantime, there's Triple R's *Picture Book*. ADAM PETERS boots it up and tries to learn something...

Picture Book offers simple spelling, counting and object recognition fun for the 2 to 5 age group. Calling itself "essential software for early learning", *Picture Book* comes complete with what the box describes as "two revolutionary keyboard overlays". And for once this is no exaggeration.

In fact, no sooner had we opened the box than the keyboard overlays leapt out, stormed the Town Hall, tried and executed the Mayor and Lady Mayoress, and set up a provisional government to administer a society based on workers' autonomy and the fair and equal distribution of wealth. No, just kidding, they didn't really do that. They went down the chippie instead.

Oh, OK then, they just sat there. At least until we got out the velcro-like sticky-backed thingies and attached one to the keyboard. The idea is that, since young kiddies aren't really au fait with capital letters, you can attach this freezer bag like thing (with small letters on it) over the com-

1 = pictures
2 = snap
3 = count 'em
4 = spell it
5 = stop!

● This is the menu where you select which program to run. (They're all loaded in one go.)

puter keyboard. They're quite clever actually, and you get both a standard QWERTY one and an alphabetical (ABC etc.) one. Smart.

The programs themselves are a bit limited in that there are only 26 words to play around with. And you can't get out of a prog without having to BREAK and RUN (the package is a single-load

The programs

Pictures

This is a kind of alphabety thing, where whatever letter of the alphabet you press on the keyboard, you get a piccie of something beginning with that letter on screen (a – apple, etc). Some of these are animated (the dog wags his tail, the apple gets eaten, and so on). These 26 words and pictures are the only ones the package has, so the same words reappear in the other progs.

Snap

Chaosabunga! Computer snap with up to three players. Choose to either match piccies to piccies, piccies to words, or piccies to letters, using the usual 26 words. Hit your button to shout "snap". A point for each correct answer, a point away if you get it wrong. First to get to 3 points wins. This is great fun, even though we were beaten 3-0 by some bloke out of Sega Power (get).

Count 'Em

Use the spacebar to choose between three levels (numbers up to 3, 6 or 9). You then get shown some piccies and have to say how many of the object there is. If you get it right, hurrah! If you get it wrong, you get a couple more guesses.

Spell It

Here's a good 'un. One of the piccies appears, together with smaller piccies to show the number of letters. Type in how you think the word is spelt. If you get it wrong, you get given a letter and can guess again (etc). Quite good fun, this one.

unprotected BASIC file). All in all though, it's very colourful and a lot of fun. Hurrah!

snap

adam
0

● I took such a pasting from a work-mate I'm only going to play one-player games now.

adam wins

adam
3
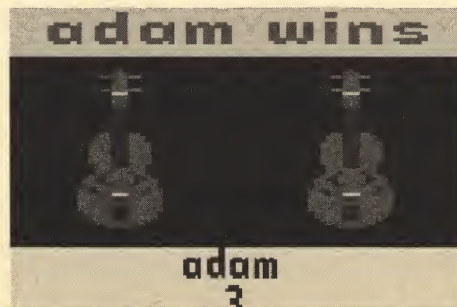
● Ha ha! I knew it was a good idea. Look, I've won! Brilliant, eh? (*Sad is a better word — ed.*)

GOOD NEWS
● Bright and colourful
● Does the business
● Overlays are a nice gimmick

BAD NEWS
● Keyboard overlays not CPC specific
● Only 26 words

Verdict 74%

ACTION TEST

Crikey, *Paperboy 2* scores a Mastergame! So does it put Ocean's *WWF* in the shade? Look out too for *Battle Command*...
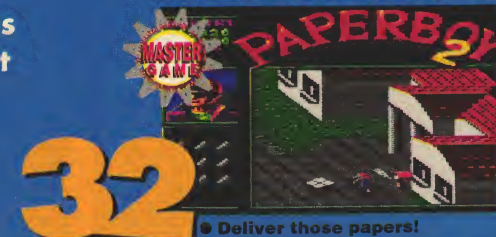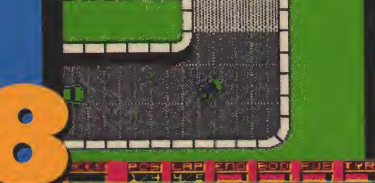
PAPERBOY 2 — Mindscape — 32
● Deliver those papers!

WWF — Ocean — 34
● Grapple fans ahoy!

36 BATTLE COMMAND — Ocean
● Tankbusting tactics galore as you take on ten one-man missions.

COMPILATION CRAZY! — 48
● 17 games in three packs... bargs galore! (Or are they?)

G-LOC — US Gold — 50
● Is it a flight sim? Is it an arcade game? Find out on page 50...

SUPERHEROES

Domark ■ £10.99 cass, £17.99 disk

Old games never die. They simply get put onto Christmas/New Year compilations a couple of years after their shelf life has expired. Domark's *Superheroes* compilation is made up from four such 'Golden' Oldies. In fact, The *Superheroes* compilation is well past it's 'Sell By' date.

Last Ninja 2 This is a direct Speccy port with monochrome graphics throughout. The plot's pretty much what you'd expect: you take control of the last of the Ninja warriors in a fight against evil etc...

It's an isometric 3D game and the backdrops are quite impressive and realistic-looking, even though it's a mono Speccy port. It's a bit of a pain to play, however, as the control system is a bit fiddly. You can disappear behind objects and so not have a clear idea of what you're supposed to be doing. There are plenty of baddies to have fisticuffs with, but this is a tedious process as it takes ages to render them senseless.

Indiana Jones and the Last Crusade This is the licence from the third and final film in the series. You play the hatted hero and have to complete a series of sections to finish the game.

Once again, this game suffers from Speccyitus. At least there's a bit of variety this time – the screen changes colour to represent

your torch burning down!

The sprites are quite large and you can recognise Indy quite well, but the animation is a bit rough and could have done with a few more frames for more fluid movement. It's slow too; jumping is particularly pathetic and Indy takes an age to come back down to earth.

The Spy Who Loved Me The action starts off in Bond's car. He has to race up a road, avoiding the oncoming traffic and trying desperately not to crash. This is quite easy, and you should have no problem making it to level two on your first go.

Next it's into a speedboat. Basically, it's more of the same, but with ramps to take you over jetties that stick out into the water. There are some nice graphical effects, such as road cones that go spinning off the road when you bump into them.

This is the nicest looking game in the collection, and feels the most competently programmed.

SECOND OPINION
"Dear oh dear, there's not much that's heroic about this little lot Indiana Jones and Strider 2 are tolerable, but you can keep the rest."
Rod Lawton

It's a trifle easy, though, and you have to wonder about the game's longevity.

Strider II The original *Strider* was excellent. Unfortunately the follow-up was a let down, and it's this that makes the fourth game in the set. Actually, it's available on a couple of other (superior) compilations too. Goodness knows why it's so popular – it's not much of a game.

It's colourful, but the graphics aren't at all that hot. Movement is slow but the worst crime of the game is that it's far too easy. You've got loads of energy and after a while get fed up dodging your enemies as it doesn't seem to make a right lot of difference whether they crash into you or not. You usually expect sequels to be *better* than the originals!

Adam W

Verdict 53%

Last Ninja 2	52%
Indiana Jones and the Last Crusade	51%
The Spy who Loved me	68%
Strider 2	63%

● **The Spy Who Loved Me**, or **The Car that Won't Stay on the Road.** Dull, multi-level Bond japes.

● **Strider 2** has a lot more colour than the original, but the gameplay's not as good.

● **Last Ninja 2** – an interesting release let down by horrible mono Speccy graphics – yuk!

● **Indy Jones and the Last Crusade** – mono graphics, and the animation's none too special either.

● Wahey, it's the bonus bit. Those are the targets we were supposed to hit (and that's the sand wall we *actually* hit). Er, whoops.

● Aha, it's one of those Medieval castles you find in every suburban cul-de-sac. Except in this one there's two of them.

● Call us born pessimists, but we don't reckon that paper's going to land in the mail box. Pick up that bundle of papes to the left if you like.

PAPERBOY 2

MINDSCAPE ■ £10.99 cass, £15.99 disk

Let's be honest, this isn't the most glamorous of subjects for a computer game is it? No disrespect to all our wonderful paper boys and paper girls (who do a terrific job, probably), but getting up at 7am and shoving the *Daily Telegraph* through someone's door hardly compares with being a Formula One driver or a Space Commando, does it?

Not to worry. *Paperboy 2* is the sequel to the 1985 game, er, *Paperboy*. It's very similar indeed to the original. There's the same hazards, the same bonus (racetrack) bits, etc. But the graphics have been improved, the gameplay tweaked, and, er, you can deliver to both sides of the road now. Oh, and you can choose to a paper girl instead if you like. Hurrah! (But it's still called *Paper'boy* though, isn't it?)
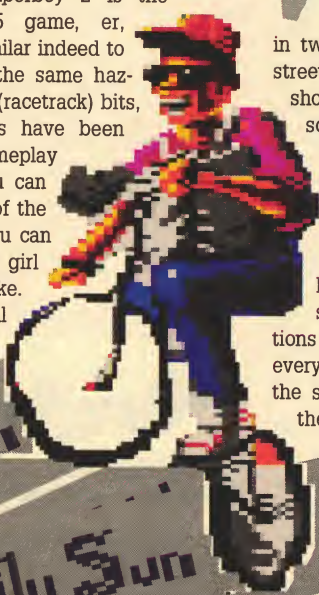
The action takes place across six days, Monday to Saturday. You get Sundays off (unlike supermarket staff). Before each day you get shown the cover of that morning's paper, the headline of which might have something to do with what's happening in the game (but then again, might not).

The delivery bit takes place in two halves (you deliver to each side of the street in turn), and before each half you get shown a plan of the houses with the subscribers' homes indicated. These are the ones you need to deliver to. Then again, they're also the only ones with post boxes, so you'll have difficulty delivering to any of the others even if you want to.

If you miss any letter boxes the householders are so incensed with your sloppiness that they cancel their subscriptions forthwith. Boo! If you manage to deliver to everyone on your round though, other people in the street see how fab you are and subscribe themselves. Hurrah!

There is a lot of bitter rivalry in the shadowy mafia-like world of newsagentry (just kidding newsies – remember *AA* is distributed by Future Publishing and is available from your wholesaler). It's newsie-eat-newsie out there, and any paper peep who lets the side down is history. So lose all your subscribers and you're finished.

You've also got seven lives and you lose one each time you cycle into a wall (or similar). After the delivery bit you get a bonus thingie, where you cycle down a race track, jumping rivers and avoiding bollards (that's *bollards*), whilst chucking any undelivered papers at targety things. It doesn't matter much if you die on this bit (you don't lose a life). Once that's over you get docked points for any windows or walls you've smashed or splattered, and then progress to the next day.

If you survive the week you get promoted to a different street with nastier hazards (haunted

The Daily Sun
The Daily Sun
PAPERBOY PROMOTION!!
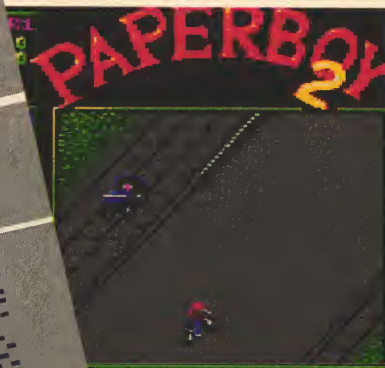
● Is it our imagination, or is that baby purple? Brrr, this road is creepy, man.

● Every higher education student in Britain has a bollard in their bedroom. Why? Who cares, as long as we can avoid these ones.

graveyards instead of castles, etc). And you keep going on like that until you lose all your lives or subscribers. (Or until you finish it and win, presumably.)

The sprites are quite small and fiddly, and you don't need to hit a ramp dead on to jump, but collision detection isn't at all bad really (try shimmying through the bollards on the racetrack bit, for example). There's no sound, at least on the 464 version, apart from a little tune half way through loading.

P2 is an updated version of a very old game which somehow seems in 1992 as good as anything else around. Any game that can keep you coming back for more like this one must have

FIRST DAY TARGET SCORE
Get to the third street

● Oh no, it's them toing-and-froing window pane delivery chaps. *AA* Tip of the Month: Try to avoid cycling into them.

● It's Monday morning and you've got a fair few subscribers on your list. But how many will you have on Tuesday morning? (Prediction: fewer.)

THINGS TO AVOID

There's a lot of hazardsome things that cause probs for paper deliverers, both in real life and in the game. Here are a few of them:

Kerbs – In real life it's possible to cycle into these without coming a cropper (provided you get enough speed up). Try it in *Paperboy 2* though, and you'll end up flat on your back whistling tunes from *The Sound of Music*. What a con, eh? I want my money back (*what money? – ed*).

Hedges – Cycling into hedges is not really to be recommended in any circumstances. Try it for real and you'll end up covered in scratches and, worse still, creepy crawlies. Try it in the game and you'll lose a life.

Fences – If you cycle fast enough into a flimsy wooden fence you can probably knock it down (try it on a neighbour's fence sometime). Er, but not in the game though, that's just in real life. You'll have to jump them in the game, using those conveniently placed ramps.

Traffic – It's a sad fact of life that if a bike (even a spanky 21-gear mountain bike jobbie) goes up against an articulated lorry, the bike tends to come off worst. So be careful.

Runaway Prams – Aha. Hardly the most common of problems for paper peeps in the real world, but the cause of major amounts of swerving in this

game. Try chucking a paper at them from the safety of the road. A good shot and a 'Paperboy Saves Baby' is the headline of the next day's paper. Aw shucks...

Delivery Men – These wander aimlessly out in front of you, the way that delivery men are trained to. But why are half the houses in the street having sofas delivered, and the other half window panes? (Actually, we can understand the window panes – our accuracy in the *Guardian*-bunging department being somewhat less than impressive.)

Bin Men – The indignity of it all. Knocked off your bike by a big black bag full of pizza boxes and empty beer cans. That's all bin bags ever contain isn't it? (*No it isn't Adam – ed.*) Well it's all my bin bags ever contain. (*Yes Adam we know – ed.*) So what else do you get in bin bags then? (*You'll find out if you don't get on with the review – ed.*) Flipping flip, it's like Alcatraz here.

Savage Dogs – Evil killer rotweilers that bite off your leg, seriously impeding your cycling abilities in the process. Er, well actually they look more like little fluffy pekineses who couldn't bite the leg off a thing with a very loose leg. But you'll still come a cropper if they pounce on you. Little gets.

Ghosts – Ghosts? Ghosts? Be serious. And who's that tall bloke in the black coat holding a scythe? Death? Right, yeah, like you get ghosts and horsemen of the apocalypse hanging round street corners when you're doing your paper round, eh kids? Happens all the time, doesn't it?

Cannon Balls – And castles too, eh? Hmm... we're none too sure about this bit.

something rather special.

Top tip: Just select one or two houses you can deliver to easily (houses two and five on the right for instance) and don't bother with the rest. This is in fact the same tactic your reviewer used a few years ago when he did a real paper round. (*Yeah, and how long did you last, pray tell? – ed.*) Er, two days. But that's not the point. Or maybe it is. Oh, I don't know.

Adam P

● Whoops. Ha! So we've found the entrance to the secret underwater section at last. Hurrah! (*You're not fooling anyone, Adam – ed.*)

● Golly gosh, jeepers and creepers, that fence looks pretty darned high. Lucky some kind soul has left these ramps here, eh?

PAPERBOY 2 VERDICT

GRAPHICS 84%
Small, but sweet, sprites and dead pretty backgrounds.

SONICS 30%
Barely a dickie bird on the 464 version.

GRAB FACTOR 85%
Paperboy 2 is faster than yer average cycling sim.

STAYING POWER ... 89%
...and there's loads of 'game' to it as well.

RATING 91%
Curiously addictive gameplay, and a nice change from the usual alien-blasting fare.
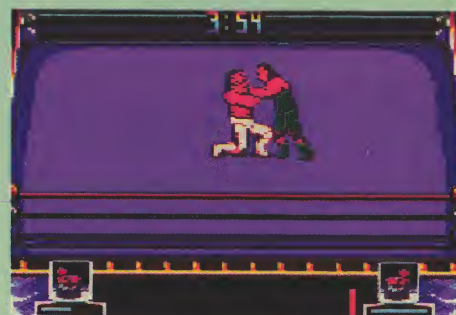
MASTER GAME

● Grappleabunga! *WWF* is an American wrestling game. All strange costumes, jumping on heads and making funny noises. And sweating a lot. And shouting. And being threatening. And so on.

● WWF wrestling is the latest craze. Everyone's at it. Playgrounds will never be the same again.

● Aaargh. Die fascist pig dog. Er, ahem, it's all just pretend really, isn't it? We're mates really.

● It might look like these chaps are snogging, but they're not. Well, they might be...

● Ha ha ha! We really are doing seriously well here, aren't we kids? We're gonna win this one.

WRESTLING – A BEGINNERS' GUIDE

And remember, kids, don't try this at home. Not unless there's a responsible adult present and correct.

Decide whether you want to be a goodie or baddie
This will affect everything you do in the ring. Goodies play by the rules and baddies cheat. Basically.

Think up a really decent moniker
Baddies should go for place names where previous baddies have hung out – any German or Japanese town will do. Ideal names for goodies include anything with boy on the end – Jimmy Boy, for example.

Get your kit sorted out
Goodies wear white, glitter, union jacks and briefs with their name embroidered on the back. Baddies look good in black, red, cloaks and masks.

Devise your own personal move
This can be a bit tricky, so here's some ideas...
● The Crook Bouncer: Get your opponent on the floor and stretch his arms out. When they're straight, sit on his stomach and place each knee in the crook of his elbow. Raise yourself up and bounce up and down on your knees. Ouch!
● The Back Slam: Whilst your opponent is standing up, climb up onto the ropes and lunge forward, head-first, into his back. He'll go crashing to the floor

and, hopefully, won't be able to move for at least two hours. The main problem with this one is that you have to make sure your opponent doesn't move.
● The Head Bash Roll: Stand on one of the posts and your opponent will come over and try and knock you off. Choose your moment well and jump onto his shoulders. He'll try and knock you off by leaning forward, hold tight to his ears and roll between his legs. He'll then go crashing head-first onto the mat. His head'll hurt but you'll be okay cos you've just executed a perfect forward roll.

Note – these are moves that both goodies and baddies can use. The only difference is that baddies have to punch their opponents in the face at the same time.

WWF

OCEAN ■ £12.99 cass, £15.99 disk

Westlers are rum coves, they wear tights for a start. English men have worn tights since time immemorial, look at Robin Hood, but in America only superheroes wear pantyhose (as they say over there). Which figures, seeing as this *WWF* business is all about good guys and bad guys.

It's also a tad different from proper wrestling. Y'see, in real wrestling you're not actually out to hurt anyone. All the moves are choreographed, and when one chap hits another he stamps his foot on the ground to make that authentic 'thumping' noise. This does not happen in Ocean's latest soopa doopa joystick waggler. Oh no, *WWF* is basically a musclebound, tight-wearing beat-em-up. And it's pretty darn spiffy.

First up you have to choose your chap. You've got a choice of three and each one has his own special move. Depending on your mood you can be Hulk Hogan with his great pile driver move, the power-slamming British Bulldog or the gorilla-pressing Ultimate Warrior. It's a tough decision and you'll probably end up going for the chap in the spankiest outfit.

Here's a quick bit of advice – go for the British Bulldog. He might look a bit crap, what with that straggly long hair and all-in-one white body stocking, but there's very little he doesn't know about picking up a chap up by the ankles and pounding

FIRST DAY TARGET SCORE
Beat Mr Perfect

his head on the floor. This probably has something to do with the fact that he grew up in Leeds and thinks all these Americans are nancies.

The computer takes on the part of your opponent, Mr Perfect. This chap's a smug get and you really can't wait to get into that ring and chuck him, green leotard and all, into the lap of a sedentary granny. Mr Perfect is convinced that he's going to pin you in the first three seconds, and it's pretty hard to prove him wrong. Uh oh, time to climb into the ring, we reckon.

The basic screen doesn't change at all throughout the game, you've just got the ring and the players. Sounds a bit boring, doesn't it? Well, don't go away, 'cos it isn't. Y'see, there's simply no need for any spanky scrolling or state of the art special effects. All you need for maximum fun is what you get – two chunky geezers and a rubber mat.

It's an easy game to grasp but it's also difficult

enough to keep you busy for quite a while. 'Cos it's a joystick waggler, you really have to put all your energy into waggling as quickly as possible. Now and then you might worry about breaking your joystick and for a split second you'll stop waggling. At that point Mr Perfect will tip you over his perfect sholders and flop straight onto your stomach from a great height. It probably hurts a great deal, it's also virtually impossible to get out of. That Mr Perfect, eh? What a spangly swine!

It's dead annoying when you get pinned down but even more annoying is the fact that whenever you knock old Perfecto for six you suddenly decide to sprint around the ring. It's a sort of victory dance, but it does stop you from using that perfect tum as a trampoline. This is our only real problem with *WWF* – everything else is spot on.

Your wrestler is well animated and can circle Mr Perfect at quite a speed. When your opponent starts to get a bit dizzy, lunge forward and get him on the neck with your special move. Hurrah!

When you get into a grapple with the Perfect one, you can almost see those muscles bubbling. Then, when he decides to wipe his feet on your stomach, your curled up body bounces up and down on the mat!

There are some really good moves in *WWF*

● And here are some of the social inadequates in question. There's the British Bulldog and Hulk Hogan above, Mr Perfect (the baddie – boo hiss!) and the Ultimate Warrior below.

and once you've attained some sort of mastery over the controls you can really start throwing your weight around. As well as putting your special super-sexy move to use and throwing your opponent out of the ring, you can also go in for a bit of slamming. Simply heave yourself off the ropes and run smack into Mr Perfect's considerable bulk. When you're almost perfect (and not afraid of the green clad Mr Perfect at all) you can jump out of the ring on one side and leap in on the other side straight onto his firm but unsuspecting back. Oof! His teeth hit the rubber mat and you'll have no probs pinning him. Ha! Nobody's perfect, not even the exception to the rule. (*Uh? – ed*)

WWF is quite difficult but it's ace fun. Yours truly is a bit of a wrestling freak so she really enjoyed it, but it's even worth a go for your average Big Daddy-hater.

Especially worth checking out is the two-player option. Get a couple of *WWF* fans onto this and they won't care about anything else. The joy-

stick waggling all gets dead hectic and somehow you can never get it to waggle fast enough. But you know that next time you'll waggle perfectly. Time for another go!

WWF is quite a big thing at the moment, so if you've got the pencil and ruler set, the bag, the blow up doll and the moveable figure, then you can't do better then go and buy this. Then stock up on the joysticks, slip into a pair of tights and get waggling.

Linda Barker

● Ha, got 'im! Er, no hang on, we're the one in yellow aren't we. Oh dear.

● "Right. If you've got something to say, say it now." The action moves out of the ring.

● Waahey. Now, who's throwing who here? Let's see... er... we're being thrown. Damn.

● He may look like he's had an accident with a Tipp-Ex bottle, but he's dead hard is Ultimate.

WWF VERDICT

GRAPHICS **88%**
Not immensely colourful, but clear and very well animated.

SONICS **61%**
Standard (aluminium sheeting being flexed) computer combat noises.

GRAB FACTOR **90%**
It's easy to learn how to waggle a joystick – just don't break it!

STAYING POWER ... **91%**
Hard enough to give you a run for your money. Great with two players.

RATING **90%**

Leotard-wearers everywhere should be queueing to get their rather large fists on this one.

RAVE!

War is not a very nice thing, readers. As unpleasant things go it's probably second only to Jeremy Beadle. And, just like Jeremy Beadle, war should not be encouraged. We should all be nice to each other, not harbour any violent thoughts, wear flowers in our hair, hold hands and skip merrily through the countryside, sharing jokes with rabbits and fluffy moo cows. (*Oh God, he's finally cracked – ed.*)

If, on the other hand, we do want to blast some fellow humans into little tiny bits, let's just pretend to do it instead. Think how much safer it

● Before you set out on your mish, you get the chance to 'tool' your tank up. Killabunga!

● That'll be a boat over there. It'll take a fair few shots with the turret to wax it.

BATTLE COMMAND

OCEAN ■ £10.99 cass, £15.99 disk

would be if the Yugoslav republics settled their civil war, for example, over a couple of games of *Mercs* or *Operation Wolf*? Maybe the UN should suggest it as a solution to all the disputes on planet earth?

Speaking of planet earth, *Battle Command* isn't set there. Or at least so Ocean claims (it looks an awful lot like the earth though). In these post-Cold War times it's much more entente cordialey for these things to be set on other worlds, so hurrah for Ocean! It's North v South too, rather than East v West, and you're a tank driver for the North. In fact you seem to be the only member of the North's army as you have to take on the whole of the Southern posse yourself. Strewth.

There are ten different missions in all, nine of which can be selected straight from the missions menu. The tenth, 'Grand Finale', can only be selected once you've completed the other nine in one sitting. In each of the missions you can either proceed straight to your target and do the biz, or hang around shooting baddies for a while first.

You get the option at the start of the game to kit out your tank with up to four weapons. There's a weight limit, but you can comfort-

● Here's a map of the mish. 'T' is your helicopter pick-up point. And 'P' is, er, dunno.

ably hook up a turret (vital), a missile shooter, and a couple of oddly-shaped, largely useless, lightweight things.

The game is one of them *Freescape*-style 3D shindigs. You get a rotatable driving seat view of the land around you (complete with indigenous baddies), and basically have to whizz around trying not to crash into too many pyramids. Oh, and shooting nasties. Oh yes, and trying to complete whatever mad, suicidal mission you've chosen to embark upon this time.

SECOND OPINION
"It moves quite quickly, and the strategic element will keep you going for ages. Is there enough variety, though?"
Rod Lawton

There's hordes of bad guys just waiting to blast you to bits. If you manage to survive and complete the mish, take a look at the map and whizz off to where some helicopter is supposed to be picking you up. Only nine more to go!

As with all 3D jobbies it looks pretty yawnsome, but it is well done, and the variety of different scenarios adds a lot to it. If you like sims you'll love *Battle Command*. The graphics are very well done and if you're relaxed enough to be able to get into it, it'll be tanking ahoy round your place. Hurrah!

Adam P

WHAT DOES THAT THING DO THEN?

Here's the view from your tank. At the top is a bar (1) showing your weapons, with the one in use selected. All the weapons have a limited number of uses, and the ammo guide (2) shows how many shots the turret at the moment so we've got a dead useful sight (3) on screen. Some weapons you don't get sights with (things you can't aim, mainly).

Down the bottom, there's a largely useless thing (4) that shows you that you're steering, a bar chart (5) that shows your speed in green when you're going forward and red when you're

FIRST DAY TARGET SCORE
Complete a mission
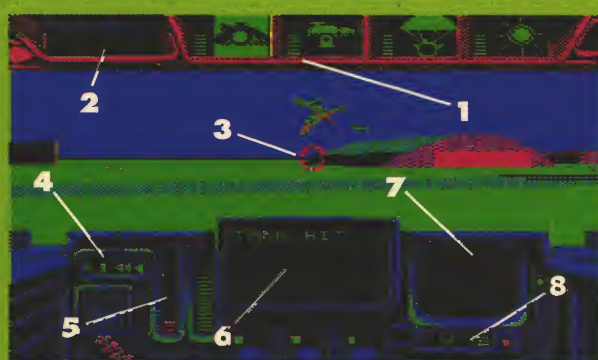
reversing, a message window (6) that tells you that you've just crashed into something, a radar screen (7) that shows you where

the baddies are, and a compass (8). Hitting 'M' will give you a map, so you can see what direction you're *supposed* to be heading in.

BATTLE COMMAND VERDICT

GRAPHICS **87%**
Pretty good 'virtual reality' piccies.

SONICS **51%**
Crashy sounds when you drive into things.

GRAB FACTOR **79%**
Battle Command takes a while to get into...

STAYING POWER ... **90%**
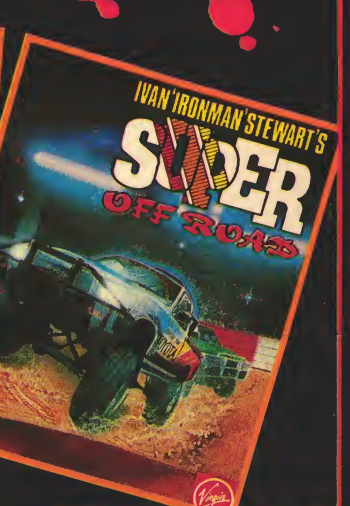...but patience and commitment will prevail.

RATING **83%**

From a distance Battle Command looks dull, but move in close. It's a blast.

Cheat Mode

● Got well and truly stuck in your favourite game? Then this is the section for you! It's packed with cheats, hints, tips and solutions for tons of games…

● Pokes are short programs which modify games when they load to give you extra lives, ammo etc. You'll find them on the covertape, while instructions on how to load and use them are on the following page.

● Multiface pokes are quick cheats for those with Romantic Robot's little black box.

● Passwords and solutions are sent in by dedicated gamesplayers everwhere.

● Keypress cheats are often put in by programmers so that they check the game before it's released.

If you've got some cheats or hints for a game, send them in! If they're printed, you'll not only get a mention in the magazine, but also maybe win a £25 mail order voucher, which you can use against any of the items in our special offers pages.

The address to write to is: Cheat Mode, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW. Get cracking!

BUILDERLAND

As always, its nice to have a lady write to Cheat Mode. Judy Kavanagh of Wilmslow has been hard at work in *Builderland* collecting passwords and compiling some tips:

1st	Start in the Forest
2nd	VOLCAN in the Cave
3rd	DARCHY in the Village
4th	NEBULA in the Swamp
5th	HYBLIS in the Manor

▪ Always pause at the start of each level to check out what needs to be moved.
▪ Collect as many hearts as possible to enable you to defeat the ultimate monster.
▪ On each level manouver as many objects to the right hand side of the screen, then take them with you as you progress.
▪ On level 3 take a staircase with you or you will be stuck just past the yellow arrows.
▪ Watch the time limit.
▪ Most monsters are simple to kill, i.e.
  Purple club kills mice and octopus.
  Knife kills ice breathers and ghosts.
  Helmet kills smiley faces in the sky.
▪ Shoes get rid of ground hidden bombs coloured red.
▪ Careful of end of level 3 monster. When you reach the doorway, push the joystick left or you will be trapped inside the monster teddy and your time will vanish rapidly. Once inside there is no escape.

TECHNICIAN TED

Remember back in AA73 I offered a prize for the first person to tell me what reward *TECHNICIAN TED* got at the end of his quest? Well, here is the moment of truth… and the winner is… dips hand into dustbin containing all the correct entries… rustle rustle (don't want you to think there's any cheating here!)… GERWYN JOHN BUNSTON of Pontardawe in Swansea. Well done, Gerwyn, your £25 voucher is winging its way to you. Nearly as good as Technician Ted himself, who received £120 as his reward at the end of the game.

EDD THE DUCK

Carl Surry of 37 Fairfield Way, Barnet, Herts has found us a couple of neat keypresses. The first is for Impulze's *Edd the Duck*. At any time, press the keys F, I, Z. There will be a burst of music and you will be invulnerable to the baddies. Careful, though, you may have to re-do the cheat after a level change.

Carl also suggested that I might "borrow" any cheats out of the latest edition (no 10) of his excellent fanzine *Play Mates*. Well… on *Destructo* if you press P to pause the game and type CAVE CARNEM, then return to the game, the following time you pause the game you can press Z to skip a level.

While we are about it Carl tells me that the Cheat for *Narc* printed a while ago went horribly wrong. What you need to do is re-define the keys as G,R,U,T,S and not as I suggested GRUNTS. I knew that really!

PREDATOR 2

Stephen Luke Of Ferryhill in Co Durham has come up with a smashing keypress for *Predator 2* – Press the keys Q, A, O and P at the same time to advance to the next level.

PROFESSIONAL BOXING

Tony Mc Erlain of Bangor Co Down and Philip Morris of Hengoed in Wales have both suggested a method to beat your opponent in Code masters *Professional Boxing* – Get your opponent's energy down to lower than yours, then hold down the "9" key. The game will pause but the clock will still count down. When it reaches zero (end of the round) let go and press the "9" again.

TERROR OF THE DEEP

The cover game on AA74 was *Terror of the Deep* minus a great deal of instruction on what to do (thanks Rod). Graham Allan of Livingston in Scotland has sent in some tips on how to control your way through the horribly infested waters of Loch Ness:
▪ Far left is the oxygen pump. To operate it you push the joystick up and down. (If you don't pump before the pointer reaches red you will suffocate!) The bell sounds if it gets critical.
▪ The weapons gauge shows how many spears and bombs you have left. Top shows arrows and bottom shows bombs.
▪ The trigger is next – your finger will be constantly on this during the game. By pressing Fire you activate the current weapon (e.g. spears, electric, bombs).
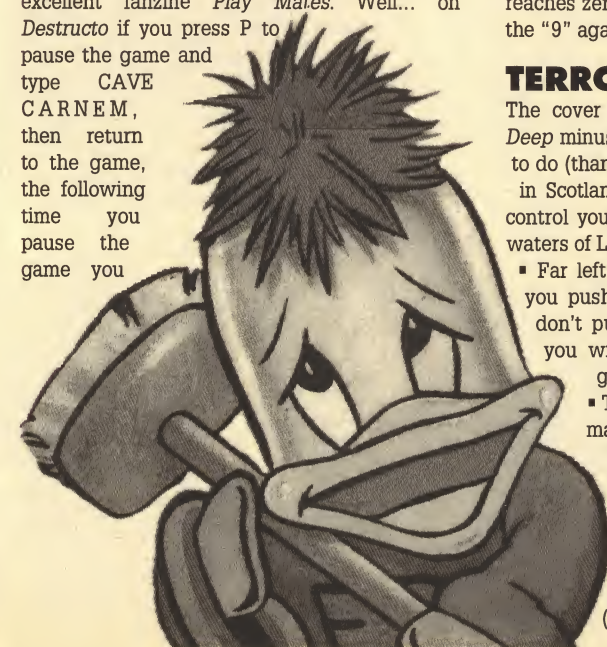
COVERTAPE POKES

1 Load the poke you want from the covertape into your computer.

2 Take out the covertape and put in your game tape or disk.

3 Type |DISC if you are using a disk poke.

4 Type RUN to run the routine (not RUN "" (CTRL+ENTER) as you normally would)

You should find that the game will load normally, or you will be given instructions what needs to be done.

The Amazing Andolfo (Andy Price of Dunstable) has conjured up a tidal wave of pokes for us this month. Some of his larger pokes are for the very complicated and new protection systems (don't even think about it!) , aren't you glad you don't have to type them in anymore?

Have a prize Andy, you handsome brute (seen his photo in the machine code series?), and send me some more, quick.

FINAL FIGHT
The poke works with the disk version – you get infinite credits and lives.

● Multiface poke

Address	Poke	Effect
1F31	No	Credits
1F36	No	P 1 lives
1F37	No	P 2 lives

OFF ROAD RACER
Works with the disk version to give you infinite boost.

● No Multiface poke

HYDRA
You get infinite boost with the disk version.

● No Multiface poke

EXTREME
Works with the disk version – you get infinite everything you could wish for.

Address	Poke	Effect
1B3F	00	Inf. time
B061	00	Inf. energy
AB11	00	Inf. torch

4 MOST ACTION
Andy has also done the business for us on yet another compilation tape, this time it's Alternative's pack which gets a sound seeing to. Lots of cheats for lots of games... well, at most four.

● Multiface pokes

Address	Poke	Effect
Combat zone		
05FE	00	Inf. lives
Strike Force Cobra		
694F	00	Stops clock
Gunboat		
7CB0	C9	Invulnerability
Dead or alive		
52B0	00	Inf. lives
514C	00	Inf. bags
50D6	00	Inf. ammo

RICK DANGEROUS
Martin Pleasance of Brampton, frustrated by the fact the cheat in AA62, for Rick Dangerous would not work on his Six Appeal copy of the game has rewritten the loader so that all Six Appeal compilation owners can have infinite bullets, lives and dynamite.

● Multiface pokes

Address	Poke	Effect
88C3	A7	Inf. lives
9F35	A7	Inf. bullets
9F90	A7	Inf. dynamite.

● The compass shows current direction (not the direction of the current, you understand!).

● Under the compass is a weapon gauge selector. By using up and down you can select which weapon you want.

● The light switch below the compass lights the water in front of you. When your power runs down the light automatically cuts off.

● The switch with the letter P is used for controlling the depth. Up, down and neutral.

● Above is the ballast guage, it shows how much air is in the ballast tanks. Next to this is the depth.

● Below and to the right is a switch with the letter S. This, when pushed up, activates a magnet which pulls supplies from the bottom to your craft. In the middle is neutral and when down it sounds a horn which tells the ship above to drop supplies.

● Above the horn/magnet is a thrust switch – up to go forward and down reverse.

● Opposite are the steering devices – the left one alters the heading and the right one controls the tilt.

● The two arrow switches below turn the screen to the left or right. Next is the power of your craft. The guage on the top shows how much power remains. Below is a wheel which can be turned (by pressing up and down on the joystick) to generate power.

● The guage up to the right shows how much fuel remains.

● The final instrument on the panel is used to detonate bombs. Be careful you don't use this unless you are a good distance away after dropping a bomb.

● Don't stay still for too long without moving or you will get a nasty thing stuck onto your screen. Use the purple flashing electric field to get if off before it kills you.

● Be careful how much power you use on the magnet, you could run out completely. If you do switch the magnet to neutral, boost to full power and get going as fast as you can.

TURBO KART RACER
Stephen Matthews of Kings Lynn has found a useful cheat for Turbo Kart Racer. All you need to do is press CTRL to move onto the next track.

SIM CITY
R Corrall of Stoneleigh in Surrey has come across a key press cheat for Sim City – Apparently while playing if you press the CAPS LOCK key and type in FUNDS you will get £10000 more. Beware, though – if you do it too often you could cause earthquakes.

VIRTUAL WORLDS
The Virtual Worlds compilation has brought a wave of cheats for all the games. To keep you going, here are the co-ordinates of all the sectors in Driller from Darren Connor of Great Yarmouth.

Sector	X	Y
Alabaster	4496	4096
Amethyst	6400	6050
Aquamarine	5120	2896
Basalt	0930	2240
Beryl	7140	3512
Diamond	4096	3472
Emerald	3746	4096
Graphite	1680	6336
Lapis Lazuli	4096	3746
Malachite	5952	5026
Niccolite	0512	1698
Obsidian	6656	6306
Ochre	1808	6720
Quartz	2768	1792
Ruby	3746	2550
Topaz	3077	1310
Trachyte	4496	6912

HERO QUEST
James Hall of Tenbury Wells and Carl (I've heard that name before) Surry of Barnet has sent us some tips for Hero Quest. Hero goes...

● If your band of adventurers is in need of money or a bit low on energy (or both) after a hard-fought quest, do the following:
Start the quest called "The Stone Hunter". If you do nothing but exit the quest you will get 100 gold coins. Do this until each player has enough to buy all the weapons and armour they need.

Also, if you search the first four rooms there will be almost nothing to worry about. You may set off one booby trap or have one creature stalk up on you but nothing more than that should happen. In these four rooms you should find money and a potion of some sort. If you find the healing potion, use it before you exit the quest. Also, use the magic spells that can heal players before you exit.

By doing this five or six times all your players will be back to full strength and very rich indeed. Save the character before you start a new (full) quest though, just in case.

● Following this tip will leave the Wizard the richest of all the characters as he can only buy a staff and tool kit. If all the characters are well off get those that need one a tool kit. It is needed to fix floor traps that you might find. Another thing that must be high on your shopping list is any sort of armour, i.e. helmet, chain mail etc. (you can get the better weapons later). This is because the characters tend to attack better than they defend. It's much better to get a strong defence before you go too far.

● Once you start to get better weapons, equip a couple of characters with crossbows. These can fire at any creature that can be seen by the character (on the overall map) even if you can't see it on the playing screen. This

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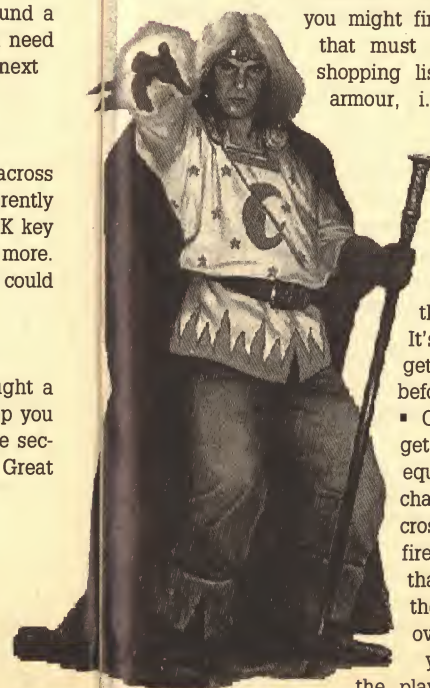
way you can attack at a distance without being attacked. The spear is also a good weapon to have for the same reason – it can be thrown diagonally – you may lose it, however, once it has been thrown.

● If you have the Battle axe, use it to attack the creatures – it is very good for that. If there are other creatures in the room, or your attack has failed, though, change back to another weapon before ending your go as you can't use the shield for defence while using the Battle axe.

● If the quest has been completed and all the characters are on their way back to the stair well, use any potions or magic that will heal or speed them up. Potions and magic are not carried forward to new quests, so you might as well make use of them.

IMPOSSABALL
The fiendishly difficult Impossaball, featured on the covertape of issue 75 has a built-in cheat to allow you to play on all the levels -

On the title screen press the keys C, H, E, A and T (what else?) all together, and a message will appear at the bottom of the screen saying START LEVEL 1. Then press L to alter the level number.

AA

MULTIFACE MADNESS

Stephen Matthews of Kings Lynn, Paul Hornsey of Linlithgow Bridge, Derek Hyland of Midleton, Jamie Murray of Lesmahagow, Elmar Krieger of Graz Austria, Omega Soft in Germany, P Curgenven of Trevone bay, and millions of others have been battling their way through the usual torrent Z80 code, and are totally responsible for bringing you this months marvellous multiface ministrations.

NAME	ADDRESS	POKE	EFFECT
Academy	8CF3	00	Inf. Missiles
	8D17	00	Inf. Ammo
	8DD6	00	Inf. delay bombs
	8CC8	00	Inf. flares
	A049	00>	Inf. Fuel
	8BEC	00>	
	83C2	00	Inf shield
Dominator	09A4	FF	255 lives
Shinobi	15B7	65	100 lives
	1407	00	Inf. magic
Spitfire	1B2A	00	Inf lives
Project Future	9564	FF>	255 lives
	9B9D	FF>	
Miami cobra Rally	C7C8	00	Inf. time
Rick Dangerous 2	9F99	C3	Invulnerability
Turrican 2 (demo)	9B47	A7	Inf. lives
	3E65	3E>	Inf. Smart bombs
	3E66	FF>	
Thunderjaws (demo)	47CC	A7	Inf. Credit
Blasteroids	2155	00	Inf. lives
Salamander	3237	FF	Inf. lives
	40FC	C9	Invulnerability
	4855	C9	Watch the level
Dragon Breed	3612	00	Inf credits
	3A1E	00>	Invulnerability
	3A1F	00>	
	3A20	00>	
Paladin	97C2	00	Inf. lives
	9750	00	Inf. time
Light Corridor	3ACE	No	No of balls
Mystical	1E3F	00	Inf. lives
Flimbos Quest	7724	00	Inf. lives

Using the Multiface

The (t)s and (d)s before the address indicate whether the poke was written for a tape or disk game (they might work on both, its worth a try). Just in case you don't already how to put in these BLACK BOX POKES, here are the steps to success.

a) Load the game as normal.
b) Press the RED button on the MULTIFACE.
c) Press "T" for tool.

d) Press "*" to make sure you select the code.
e) Press "H" for HEXADECIMAL input.
f) Press "SPACE" for input.
g) Type in the ADDRESS (4 characters ie. 3A7C)
h) Type in the POKE (2 characters ie. A7)
i) Press "RETURN"
j) If there is more than one poke goto (f)
k) Press "ESC" back to the menu.
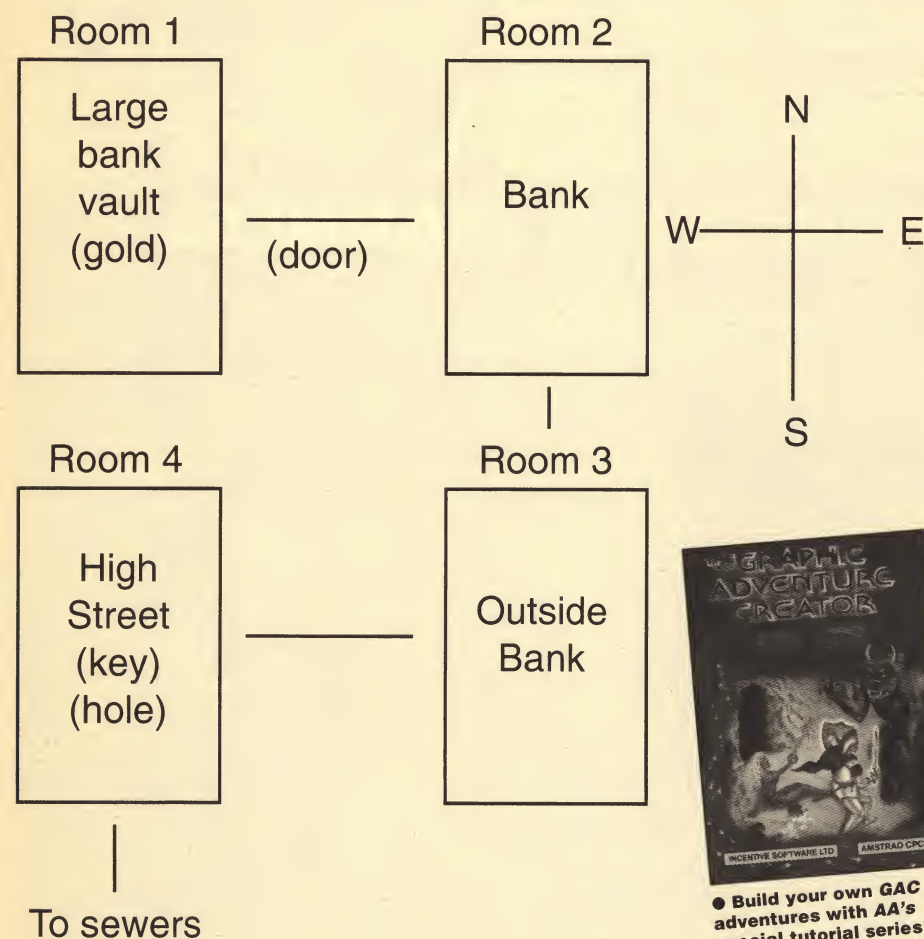l) Press "R" return to the game.

GAC programming tutorial: Part 1

This month the Balrog continues adding to our bank adventure, started last issue, as well as telling you more about how to work *GAC*...

Not only are we going to add more locations to our bank adventure, we'll also be adding a puzzle (a locked bank vault door) and a maze!

Now let's add a maze – let's make it a sewer complex beneath the High Street...

Room 5 'You are in a dank sewer. You can see daylight above.'

Room 1
```
Large
bank
vault
(gold)
```
— (door) —

Room 2
```
Bank
```

```
        N
        |
W ——————+—————— E
        |
        S
```

Room 4
```
High
Street
(key)
(hole)
```

Room 3
```
Outside
Bank
```

|
To sewers

First, let's add the extra locations:
Room 3 'You are outside the bank. Exits are north and west.'
▪ Connections: N 2 W 4
Room 4 'You are on the the High Street. There is an exit to the east and you can go down to the sewers.'
▪ Connections: E 3 D 5

and amend the old locations...
1. Add the message 'The bank vault door lies open to the east.' (We're not going to allow the adventurer to close the vault, just open it) in Room 1.
2. Remove the exit 'west 1' from room 2 (as we'll be putting a door between these two locations) and add south 3. Also add to the end of the room description 'There is an exit to the south and a large bank vault door to the west.'

▪ Connections: U 4 N 8 S 7 E

So let's go over what we've got now - we've added a lot more locations, including a four room sewer maze which should be good (and could be made a lot harder if you changed all the location descriptions to be the same!). Now, we still want to add the following:

▪ Start in room 8
▪ Put a key in room 8
▪ Add a door to Room 2
▪ Add a puzzle which lets you open the door with the key...

1. Starting in room 8 is easy – just go to the 'Begin where?' menu and change it to 8!
As to putting the key in room 8, follow the same approach as the bar of gold from last issue, i.e.:

Nouns
2 Key
Objects
2 a key
starts in room 8
and weighs 1.
Messages
2 The key looks important...

Low Priority:
11: IF (VERB 7 AND NOUN 2 AND HERE 2) GET 2 OKAY END
12: IF (VERB 8 AND NOUN 2 AND CARR 2) DROP 2 OKAY END
13: IF (VERB 16 AND NOUN 2 AND AVAI 2) MESS 2 END

Adding the door and the puzzle element is the complicated bit:

Add MESSAGE 3 'The door is wide open...'

add 'door', 'vault' and 'bank' as noun 3 and add the verb 'unlock' to the verb list (make it verb 18).

Now go the local room conditions and add a condition for room 2:

IF (VERB 4 AND SET? 3) GOTO 1 WAIT END

If you typed 'West' and marker/flag three is set (i.e. the door is open) the go to room 1 (the bank vault).

Also, add IF (VERB 4) MESS 4 WAIT END to the list (if type go west and marker is not set then print message 4 (which we make 'You can't walk through doors you know!'))
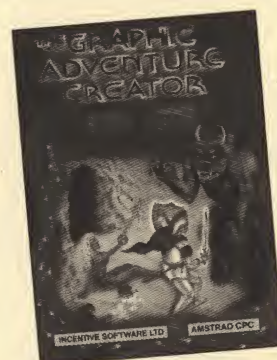
And finally add:

IF (VERB 18 AND NOUN 3 AND CARR 2) SET 3 WAIT END

Which basically says if you typed 'UNLOCK DOOR' and you have the key on you then set the door to be unlocked.

Finally, we want to add the message about the door being open to the end of the room description, so we need to go to the high priority conditions menu and add:

1: IF (AT 2 AND SET? 3) MESS 3

● Build your own *GAC* adventures with *AA's* special tutorial series.

And we should be ready to rock and roll! Pat yourself on the back if it works – *Bank Adventure* now looks much more like a proper adventure than the two location 'thing' we created last month! If it doesn't work then look at the errors box to see what you've done wrong...'
Save it as a datafile called bank.

Editing and deleting things
To edit something (such as a room location or a condition), follow the procedure to enter it, and instead of empty lines to edit things on, you will get what was there before. To skip to the next part just press ENTER/RETURN. You are free to edit things as you go along, but don't press ESCAPE before you get to the "Which room/object/line number...?" or your changes won't be kept!
To delete something, follow the procedure to enter it, but edit the first bit of data to be a blank line (i.e. no spaces). This can be done by repeatedly holding down the CLR key.
For example, to edit object one from 'a bar of gold' to read 'the mystical lost treasure of Nanu-Xanu', just press O from the main menu (for objects), choose object 1, edit the line using CLR, DEL and the cursor keys and then press Enter until the "Which object number?..." prompt appears at the bottom of the screen. Then just press Escape and the change will be committed to the computer's memory.

What is a marker/diagnostics?
Markers and counters (sometimes called flags or variables) are very important to any adventure game – without them, it would be very difficult to write even the simplest puzzle.
There are 256 markers, which can only be true or false. They are set by using the SET and RES commands (see example of the bank door above) – thus if marker 3 is set (true) then we say that the door is open, else if it is unset/reset (false) then the door is closed. Markers are tested using the SET? and RES? commands. These markers are very useful for puzzles which need to test if something is true or false (i.e. a door open/closed, night/dark, hungry/full etc.).
There are 128 counters, numbered from 0 to 127. They are most frequently used to store the number of moves since a particular event (e.g. in the dark) but could be used for keeping account of how many gold coins you have etc. Counter 0 holds the score and counters 126 and 127 hold the turns count since the start of the game.
When you are testing an adventure, the way to return to the main menu is to press the ESC key, as usual. This gives you the message "Press D for diagnostics or ESC to escape...". If you press the "D" key, then all the markers and counters will be displayed on the screen. For the markers, a filled circle indicates "SET" and an unfilled one "RESET". The values of the counter are given as you would expect. To get

Error messages – what they mean

Any adventure you write will develop bugs as you go along. Some of them more serious than others. There are several errors than can occur from within *GAC* and most of them will throw up one of the error messages listed below:
Message not found – means exactly that, you haven't set up the message that the routine is referring to. If you get this immediately, check that you have loaded in the quickstart files (QS.ADV) as this has all the system messages.
Room not found – commonly caused when you have a GOTO to a non-existent room or a connection which leads to a room which has not yet been created.
Object not found – means that you have tried to pick up, drop or describe an object which doesn't exist.
Marker not found – Means you have tried to access a marker which does not exist.
Counter not found – means you have tried to access a counter which does not exist.

Illegal value – means you have tried to look for a verb, noun, adverb etc with a number greater than is possible or have tried to load a counter with a number greater than 255.

The legal ranges of numbers are:

Rooms:	1 .. 9999
Objects:	1 .. 255
Messages:	1 .. 255
Verbs:	1 .. 255
Nouns:	1 .. 255
Adverbs:	1 .. 255
Markers:	0 .. 255
Counters:	0 .. 127
[which store:	0 .. 255]

Usually an error is caused by a typing error or forgetting to enter a room/object/noun etc and thus easily traceable.

back to the main menu just press ESC again, or press any other key to get back to the game (very useful for debugging the adventure).

What next?
That is up to you! Next month I'll continue the tutorial, but I would prefer to answer readers' questions. If anyone has any queries concerning *GAC* thamstrad en write to: **GAC Programming Clinic, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW.**

Balrog

Y ou are standing at the entrance to pages 44 to 46 of a top monthly computer mag. *>Examine pages*. The pages are packed full of tips, letters and news items on the magical world of CPC adventuring. *>Enter pages*. You enter the Balrog's lair...

Balrog's Postbag

The Balg receives literally hundreds (well nearly!) of letters every month and cannot possibly print them all. However, don't despair. Even if your letter has not been printed, I promise you that I have read and digested it!

PD GAC Games?

As you are running a competition I thought it would be an idea to have the best adventures put onto a selection that will be available on PD. Of course, that depends on the authors' permission but it is a great way of getting your name known. Simon Avery (and Ken Bond HBalg – Balg) is a good example of this. Many people have bought his commercial adventures because they have already played his adventures on public domain and knew his work well.'

Debby Howard
Adventure PD

What a great idea, Debby! So, if you would like your entry in the GAC competition to go public domain if it doesn't win, then please mark it as PD and I will pass it on to Debby. Who knows, it could be the start of your adventure programming career!

Adventure recommendations

I would like to recommend *The Spiro Legacy* by Ken Bond. I had to return my disk (due to my own fault) and he returned it with two extra adventures – *The Base* and *The Island*. These are the best adventures I have played since *Scapeghost*. Thanks, Ken!

I hope that the covertape may soon have an adventure, and I especially liked one reader's

Castle Sargos

This is the name of a tape-only adventure from new software house DBFA Software. The plot is your standard Swords & Sorcery story-line – an evil (and very powerful) sorceror lives in said castle and you, as the hero, must defeat him. For more details, write to David Holland of DBFA Software at 11 Bailey Court, Lawtons Acre, Alsager, Stoke-on-Trent, ST7 2YH.

Guild special offer

Tony Collins from Guild Adventure Software (which, as mentioned in *AA75*, now sells all the old

Recreation Re-created titles) is offering a special low-priced compilation of *The Hermitage*, *Teacher Trouble*, *Into the Mystic* and *Davy Jones Locker* for Balrog readers. The disk-only compilation costs only £10 (a saving of £6!) – just mention that the Balrog sent you and you'll get the saving! Write to Guild at 760 Tyburn Road, Erdigton, Birmingham B24 9NX or telephone 021 749 2585 (9 to 9).

Contacting the Balg

To get in contact with the Balg, write to him at Amstrad Action, Future Publishing Ltd, Beauford Court, 30 Monmouth Street, Bath, AVON BA1 2AP or e-mail at cazsjw@uk.ac.leeds.dcs.

idea of putting an Infocom adventure on tape, which would then have to be transferred to disk. *AA72* had a 128K disk-only database, so why not a good adventure?

Michael Stirling
Dundee

Ken's games certainly are very good – one of the reasons why he was awarded an honorary Balrog some issues ago. As to having a disk-only adventure on the covertape, it's a great idea but I'm not sure how popular it would be – what do you think? Write in to the usual address!

Hitchhikers Query

Can you get *Hitchhikers Guide* on tape?'

Richard Chare
Southport

Sorry, Richard Hitchhikers Guide was a disk only game which is now unavailable. As to your PS concerning Andy Peters from Childrens BBC – consider it done!

New magazine

I am presently writing an adventure magazine called *Other Realms*. It deals with most aspects of adventuring including role-playing, board games and much more. I will send you a copy when it is finished, but I have a favour to ask you – Could you please let people know that I am desperate for adventure games on the Amstrad for reviewing purposes.

If people do send me adventures, I will send them back along with the review printed in *Other Realms*. Please do me that favour, or else *Other Realms* cannot go ahead!'

The Daemon, 4 Cornwall Avenue, Knuzden, Blackburn, Lancashire BB1 2DD

Good luck with the magazine. Don't forget to send me a copy when you get it finished!

Space Crusade

Is *Space Crusade* likely to follow *Hero Quest* onto the CPC?'

Steven Dale
Aberdeen

Yep! We don't have a precise date yet, but it should be any time now!

Magnetic Blues

I have accidentally copied over my *Guild of Thieves* game, which I enjoyed a lot. Please can you supply me with the address of Magnetic Scrolls so that I can replace it?

John Truss
Salop

Magnetic Scrolls is at 1 Chapel Court, London SE1 1HH. Tel 071 403 4325. Good luck!

Clue-sniffing with the Balrog

This month's hint-packed Cluepot comes to you from Dave Adams (St Helens), Laurence Boyce (Leeds), Peter Clarke (Ipswich), Jonathon Constable (Kendal), Peter Knowles (Barnsley), Robert Melody (Surrey) and Dyved the Black (Sancton). True adventurers through and through!

Angelicus Saga
▪ In part 1 lift the carpet to get the crowbar.
▪ The answer to the riddle is "leaf".

Base
▪ The combination for the safe in the governor's office is turn dial right 6, turn dial left 5, turn dial left 3, open safe.
▪ The torch is under the bed in the spare room.
▪ To cross the catwalk, wait when you hear the footsteps and then keep going south.

Book of the Dead – Part 1
Don't climb down the rope if you are carrying anything or you will be killed. When leaving the rubbish dump go north to avoid the thugs.

Dungeons Amethysts Alchemists 'n' Everything
▪ To get the potion of strength (which you need to open the alchemists tower) – take the sword and go and kill the dragon.
▪ Give the whip to the nun (!)
▪ The amethyst is found inside the pan.

DAAW
▪ To get past the Balrog, give him the adven-

ture game!
▪ Be careful before going down dark stairway.

Grue-Knapped
▪ Throw the tights to catch the bat and then give it to the cricket.
▪ Catch fish with the whip, worm and bent pin. (*This doesn't work in real life - ed.*)

Guild of Thieves
Shake palm tree to get a coconut.

Heavy on the Magick
▪ To get past the hydra in 'Rook of Hydra', get the snake carved with an undine from Wraithvale.
▪ Find the mirror and use it to destroy the medusa.
▪ The 'call' spell is used to summon Apex, but beware of psychic overload when casting it.

Firestone
Dave Adams has come to the aid of Pervez Choudhury's problem – you can talk to the knight, but you must 'TALK TO MAN' as the parser doesn't recognise 'KNIGHT' and the chasm is crossed by 'WALK PLANK' as long as you are wearing the spiked running shoes – otherwise you will slip off!

HELP!

Lots of probs!
Laurence Boyce from Leeds is stuck in four games. He doesn't know how to get out of the house in *Werewolf Simulator*, cannot discover how to put the bucket of hot coals on the snow

in *Imagination* and is stuck in the first location of both *Lifeterm* and *Wizbiz*!

Mystery of Arkham Manor
Jim from Cambridge has been tearing his hair out – can people please send in any tips for this game as Jim is really stuck!

Shadows of Mordor
Jonathon Constable from Kendal has made a raft but is not sure what to do next – any ideas? Jonathon is also stuck in *Lord of the Rings*. He can't get through the dark tunnel after Merry Brandybuck's house, he's tried everything but the game keeps crashing.

Clue Cauldron

This months Clue Cauldron is on *Grange Hill*. Thanks to Thomas Christie from Grangemouth for the hints and map.

Character Locations:

Hollo you	At start of game he follows
Dog	Near Flats
Pusher	More wasteland
Imelda	Edge of Fence
Mr. Griffiths	Grange Hill Entrance

Grange Hill – The Map

Objects	Location	Purpose
Glass Eye	Pensioner's Flats	Pick up to avoid slipping
False teeth	Pensioner's Garden	Pick up to avoid being bitten
Telescope	End of Street	Red herring
Walkman	Staff room	Get this to approach home safely
Candle	Canal	Need this when in duct
Matches	Pensioner's Garden	Use to light candle
Paper plane	Outside pipe	Used to get matches

Objects	Location	Purpose
Dead cat	Subway	Give to Imelda
Bone	Canal	Give to dog
Torch	Gap in Wall	Red herring
History Book	Sewage tank	Use it to get paper plane
Felt pen	More walls	Red herring
Chair leg	More wasteland	Use to break boiler room padlock
Fishing rod	Patch of grass	Use to get bone

Lords & Ladies of Adventure

William Huddleston, Lord of Adventure, has written asking me to mention (yet again) that the Lords of Adventure are not a solution service – when you write please do not ask for a full solution but instead specify your problems in the adventure. Also don't forget to send an SSAE!

Bestiary • Blue Raider • Firestone • Quad X • Wizards Castle.
Lee Davies, The Flat, 415 Whitehall Road, Bristol B55 7BP

Fantasia Diamond • Fish • Future Wars • Guild of Thieves.
Bilbo Baggins, 67 Philip Avenue, Nuthall, Nottingham NG16 1EB

Grange Hill • Great Escape • Knightmare.
Thomas Storey, 27 Queens Drive, Whitley Bay, Tyne & Wear NE26 2JU

Star Wreck.
Steven Kenny. Tel 0942 213195

Star Wreck.
James Morley, 27 Rowlestone Rise, Greengates, Bradford, West Yorkshire BD10 0DS. Tel: 0274 616674

Hollywood Hijinx • Scapeghost.
Gwynn Hopkins, Albion House, Llandre, Nr. Aberystwyth, Dyfed SY24 5BS

Adventure Quest • Angelique a Grief Encounter • Arnold Blackwood Trilogy • Big Sleaze • Black Fountain • Bugsy • Case of the Mixed-Up Shymer • Castle Blackstar • Castle of the Skull Lord • Crystal Theft • Cursed Be the City • Cutthroats • Dracula • Dungeon Adventure • DAA • Enchanter • Escape from Koshima • Espionage Island • Fantasia Diamond • Fish • Football Frenzy • Frankenstein • Gnome Ranger • Gremlins • Guild of Thieves • Haunted House • Hermitage • Hitchhiker's Guide • Hollow Graphic • Hollow Text • Hollywood Hijinx • Hunchback • Imagination • Inca Curse • Infidel • Ingrid's Back • Jack the Ripper • Jinxter • Kingdom of Hamil • Kobyashi Naru • Lancelot • Leather Goddesses • Lifeterm • Lords of Time • Lurking

Horror • Mansion • Mindshadow • Monsters of Murdac • Mordon's Quest • Mountains of Ket • Mystery of Indus Valley • Myth • Necris Dome • Never Ending Story • Nova • Nythyhel • Pawn • Planet of Death • Planetfall • Questprobe • Rebel Planet • Rigel's Revenge • Robin of Sherwood • Robocide • Seabase Delta • Shard of Inovar • Sharpe's Deeds • Ship of Doom • Smashed • Sorceror • Souls of Darkon • Spellbreaker • Spytrek • Star Wreck • Subsunk • Theseus • Top Secret • Venom • Very Big Cave Adventure • Winter Wonderland • Wishbringer • Wolfman and Zork I, II, III • all Interceptor games! (*Crikey, what a lot of adventures! - ed.*)
Graham Wheeler, 2 Burford Close, Southdown, Bath, Avon BA2 1JF. Tel between 10am and midnight (0225) 426919

Colour of Magic • Hobbit • Lord of the Rings • Nightmare • Quest for the Golden Egg-cup • Shadows of Mordor • Times of Lore • Werewolf Simulator • Wizard Warz.
Douglas Thompson, 14 Cosgrove Close, Peterborough PE3 7JN

Programming with the Balrog

Aron Watson from New Zealand has written a loader for finished *PAW* adventures. The idea is for messages (e.g. copyright) to be displayed while your game is loading. Your adventure's filename will have to be inserted into the File Control Block. Also change the message too. Now assemble it into a .COM file using an assembler (eg MAXAM). Make sure your new loader is on the same side of the disk as your game. Now run the loader. The loader should disable the status line at the bottom of the screen, clear the screen, print your new message, load in your adventure and run it, giving your great adventure that extra touch.

```
            ORG 0F000
            LD HL,0100
            LD DE,0F000
            LD BC,0150
            LDIR                ;Shift Proggy to top of memory.
            JP PROG.
            RET
PROG.       LD DE,MESOFF.       ;DRIVE IS A: message turned off.
            LD C,9
            CALL 0005
            LD DE,CURSOR        ;Home cursor
            LD C,9
            CALL 0005
            LD DE,COFF.         ;Disable cursor blob.
            LD C,9
            CALL 0005
            LD DE,CLS.          ;Clear screen.
            LD C,9
            CALL 0005
            LD DE,STRING.       ;Print message.
            LD C,9
            CALL 0005
            LD DE,0100          ;Load address for adventure - 0100
            LD (0FFFF),DE
            LD C,01A            ;Set DMA address
            CALL 0005
            LD DE,FB.           ;Open file
            LD C,00F
            CALL 0005
            LD IX,080
READ.       LD DE,FB.           ;Read Sequential.
```

```
            LD C,014
            CALL 0005
            CP 0
            JP Z,BUFF.
            JP NZ,CLOSE.
BUFF.       LD (0FFF0),IX       ;File memory buffer increase.
            LD BC,(0FFF0)
            LD HL,(0FFFF)
            ADD HL,BC
            LD (0FFFF),HL
            EX DE,HL
            LD C,01A
            CALL 0005
            CALL READ.
CLOSE.      LD DE,FB.           ;Close file.
            LD C,010
            CALL 0005
            LD DE,CON.
            LD C,9
            CALL 0005
            JP 00100            ;Run adventure
FB.         DEFB 00             ;File Control Block.
            DEFB "GAME "        ;Change to adventure
            DEFB "COM"          ;filename.
            DEFB 00
            DEFW 00
            DEFB 00
            DEFB 00,00,00,00
            DEFB 00,00,00,00
            DEFB 00,00,00,00
            DEFB 00,00,00,00
            DEFB 00
            DEFB 00,00,00
STRING.     DEFB " Game loading...$" ;Change to new message.
CLS.        DEFB 01B,078,'$'
CURSOR.     DEFB 01B,04B,'$'
COFF.       DEFB 01B,066,'$'
CON.        DEFB 01B,065,'$'
MESOFF.     DEFB 01B,000,'$'

Hope it works! – Balg.
```

CAPCOM COLLECTION

US GOLD ■ £17.99 cass, £24.99 disk

US Gold has been banging out Capcom arcade licences for ages now, and this collection gives you eight of the things in one go. It's quite a mixed bag – there are good games, but some duffers too. Still, you get a lot of games for your dosh, as ADAM WARING discovers...

Strider is a walk-along and beat-em-up type of game. You're a bit of an acrobat and cartwheel all over the place. You also have a hell of a chopper on you (ha ha... that's enough cheap gags – ed) to slice up your enemies.

Excellent four-colour graphics give the game an almost unique look. It scrolls well and there's lots to see and kill. You'll like it!

UN Squadron takes place in the Middle East. The Middle East, eh? Always some kind of trouble going on. Only one thing for it, to send in

● Another war in the Middle East, huh? Ah well, better send in the UN Squadron to sort it out.

● Wobble precariously in mid-air and trash countless aliens in Forgotten Worlds.

a 'peace-keeping' squadron of, erm, one plane.

You're the pilot, though, and can deal out the death in one of three types of plane. It's pretty standard shoot-em-up fare, with a good choice of weaponry at your disposal. A shop lets you buy the extra goodies that the army are too mean to buy you. Not a bad blast.

Last Duel is a two-player shoot-em-up. Player one is in a car while number two takes to the skies in a fighter plane. It's a bright looking game, but not terribly good. The scrolling is jerky, and the playability isn't really there. Ho hum.

Forgotten Worlds is different. Most shoot-em-ups give you an advanced nuclear fighter to take on the hordes from Zorgon-4. Not

this one, you're on your own, matey, with not so much as a Sopworth Camel to do the business in. You can fly, though, and you have a gun so you do stand a bit of a chance.

The control method's a bit weird. Moving left and right rotates your angle of fire as well as actually moving too, so you often end up shooting the floor instead of the mean mothers. Irritating.

Ghouls 'n' Ghosts is the follow-up to the ancient but classic game Ghosts 'n' Goblins. As a night in shining armour, it's your mission in life to rid the world of evil spirits. It has a couple of nice touches, such as collision with a nasty doesn't kill you outright, but has you running around in your undies! Apart from that, though, it's not much cop. The graphics are dodgy and it's a bit dull.

Dynasty Wars is a weird-looking game. In fact it's quite weird to play, too. It's set in

ancient China, a feudal society where war was a way of life. You're on horseback and have to trot along wasting men with bows and arrows.

It's a bit slow-paced, rather easy and gets a bit confused at times. An original idea, but it's not going to keep you up all night.

LED Storm is a bit like Last Duel, in both concept and playability. You drive along a road and have to avoid/kill other vehicles. It has some nice parallax effects – there are two levels of depth, but the game is a bit of a pig. There's simply not enough to do.

Strider 2 doesn't have quite the appeal that the original had. It uses all 16 colours, and this time Strider's tightened up his act a bit and can shoot things as well as using his sword. It's

● Urk! Look out for those arrows! It's a dangerous business, the Dynasty Wars...

● That Strider bloke's a bit of an acrobat. His plasma sword's a bit natty, too.

all a bit too easy, though The original is still the better game.

> **SECOND OPINION**
> "Capcom Collection looks like great value at first, but few of the games really shine and some of them are naff. Not quite the bargain it seems"
> *Rod Lawton*

Verdict 65%

Strider	87%
UN Squadron	78%
Last duel	56%
Forgotten Worlds	68%
Ghouls 'n' Ghosts	47%
Dynasty Wars	67%
LED Storm	45%
Strider 2	63%

MAX PACK

US GOLD ■ £17.99 cass, £24.99 disk

The smallest of the compilations, but with one exception all the games are well worth having! Certainly, if you don't have Turrican II in your collection already then (a) you're a bit of a fool and (b) you should buy this compilation sharpish!

Turrican II is one of the best games on the Amstrad ever! Huge levels, brilliant graphics and

plenty of violence make for a real corker. The sprites are large, with some really big mid-level baddies to beat. The great thing about the game is the exploration potential – you can go anywhere you like rather than being restricted to going horizontally in one direction.

Turrican II has it all. It's almost worth getting the collection for this game alone!

Saint Dragon is a nice idea – a shoot-em-up on the back of a dragon! You sit on the beast's back as it flies into the action. Your mount is bullet-proof too, so you don't have to worry about anything but a direct hit... Actually, this is the

● Turrican 2 is almost certainly the best Amstrad shoot-em-up ever written! It's almost worth buying the pack for this alone...

game's downfall. You can sit simply at the top of the screen and with the tail wrapped around you completely protecting you from harm. Which makes it pretty damn dull, really.

vertically-scrolling shoot-em-up. There's plenty of action as you take on the bad guys. The scrolling is smooth, the action fast and furious and it's about as good as this type of game gets.

Night Shift is the odd one out here, as there's no killing to be done! Still, that doesn't mean it's a bad game. Far from it – Night Shift is one of the most original games you'll find.

Basically, you're in charge of a machine that produces plastic dolls. You have to keep every-

thing running smoothly, which involves things like peddaling a bicycle to start the generator and pulling all manner of levers and switches to get conveyer belts rolling in the right directions. Factory work can be fun!

There are simply oodles of levels, each one with more to do and less time to do it in. Once you've successfully completed a level, you get a password, so you never have to go through an easy level again. Brill!

● St Dragon lets the compilation down – it's the weakest game of the bunch. Pity, really, because the rest are good.

So much for the dragon – it's more of a turkey!

SWIV has a jeep and helicopter team dishing out death and destruction in a

> **SECOND OPINION**
> "This is more like it! St Dragon is distinctly half-baked, but the other three are great. Max Pack is no great bargain, but it's pretty solid nonetheless."
> *Rod Lawton*

Verdict 89%

Turrican 2	95%
St Dragon	43%
SWIV	85%
Night Shift	86%

CHART ATTACK

GREMLIN ■ £14.99 cass, £19.99 disk

Gremlin turned out some real stunners last year and has now been awfully kind and put them onto a lovely little compilation. It contains a Mastergame, a couple of Raves and the rest are all right. Who says you need mode 0 for neat graphics All in all, then, a desirable little package...

● Lotus Esprit Turbo Challenge – the best racing game of all time. According to Rod, anyway.

Lotus Esprit Turbo Challenge is a one or two-player 3D racing game that's pretty darn good, actually. Race around in posh cars over a number of progressively difficult tracks. It handles realistically, so there's none of this taking tight bends at 150 mph business. This does mean it's not quite as arcadey as some games, but provides all the more in the way of a challenge.

Impossamole is a mole with a mission. Well, five missions. It's a platform-type affair with lots of nasty but oh-so-cute creatures to jump over. You can start on any of four levels, and can play the fifth when you've completed them all.

Not that it's likely that you will. It's a tad tricky. Cute, but frustratingly difficult.

Shadow of the Beast has wonderfully detailed graphics. Having a head like a hammer

just as impressive on the Amstrad. There's less colour, but excellent detail.

Ghouls 'n' Ghosts is also available on the Capcom Collection. This is definitely the worst game in the pack. It's a hack and slash affair where you run around in a suit of armour and try and batter in the bad guys.

It's just that the scrolling is slow, the graphics poor and it's not all that much fun to play. Oh dear.

Super Cars is a racing game, but it's very different from Lotus. It's all seen from above. You pelt round the tracks, trying to past the post in pole position. Points mean pennies in this game, and you can upgrade your vehicle to take on the ever faster opposition.

Among the goodies on offer are bigger engines and rocket launchers. so you can play to win by fair means or foul...

● Impossamole is generally frustrating and not too brill. The rest are good, though.

is no joke, and it's down to you to right the wrongs and do in the guy who made you such an ugly get.

Crisp, graphics, loads of playing area and lots to do. Shadow of the Beast stunned everyone on the 16-bits it was originally released on, and is

> **SECOND OPINION**
> "Why stick Ghouls 'n' Ghosts in Chart Attack? It's the only non-Gremlin game, and the only particularly weak one. This is the best compilation of the lot."
> *Rod Lawton*

Verdict 87%

Lotus Esprit Turbo Challenge	90%
Impossamole	72%
Shadow of the Beast	85%
Ghouls 'n'Ghosts	47%
Super Cars	87%

● Varoom! We're off to do battle with the Hun. Or whoever the baddies are.
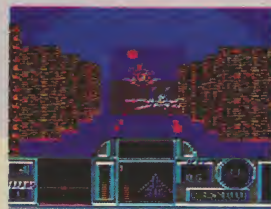
● This is the cliff stage. Those are the cliffs (titter). Don't fly into them.

● Hurrah! Another group of evil villains falls at the feet of Flight Lieutant Peters.

● Twenty? Twenty? You must be joking! We'll do ten and that's your lot.
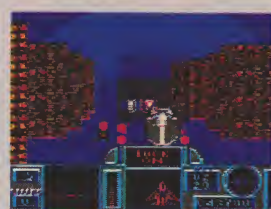
● What *are* these strange insect-like things? Oh well, let's blast not contemplate.

G-LOC

US GOLD ■ £11.99 cass, £16.99 disk

Nyyyow. Akka, akka, akka. Kerboom. Er, hello. Sorry, getting a bit carried away there. *G-Loc* is an ariel combat game which was a big hit in the arcades. Mainly because, in order to give some sustenance to the game's title (which stands for loss of consciousness due to gravity) the cabinet you sat in lurched around like it had a rotweiler in its pants. Which left you to either marvel at the technology used or bring up your lunch all over the first person to congratulate you on your performance (or both, possibly). The CPC version won't shake you around all over the place, of course. If it does, consult an electrician.

So what can we expect from an 8-bit conversion of a game that owed much of its appeal in the arcades to innovations not recreatable on a home computer? We can expect anything we want. What we end up with is a pretty good, yet majorly repetitive, shoot-em-up. The screen shudders quite nicely though.

You're flying some sort of planey thing, and you've got to shoot down lots of other planes. First eight, then nine, then ten. You then move on to a cliffy thing, where you're flying down a narrow ravine, shooting more planes and then some strange grey bugs (possibly battleships?).

Good news: With a little practice you can handle the guns and missiles like a trooper (er, pilot). The slight shaking of the screen does bring

● This is us, exploding into lots of little tiny bits. Ho hum. Never mind, we weren't really concentrating anyway. So it doesn't count.

a small part of the arcade game's raison d'être into your home. There are a lot of waves of bad guys to face off against. There a three difficulty levels which, whilst not being any easier or more difficult than each other (!), do present an opportunity to vary the number and order of the enemies.

Bad news: The scrolling on the cliff sections is so jerky that it's almost sad. What are those bug-like things supposed to be? The "shoot eight enemies, then nine, etc" business hardly makes

for what would be termed 'unrepetetive gameplay'. The cliffs don't get bigger when you steer towards them. So you crash into them without any advance warning.

G-Loc is actually quite good fun. The sound is very good and the graphics reasonable (those flippin' beetles excepted). At the end of the day, though, it's just too samey to hold the attention for any considerable length of time. It's polished and professional, sure, but also totally uninspired.

Adam P

FIRST DAY TARGET SCORE
200,000 points

A TOUR OF THE COCKPIT

The most important thing on the *G-Loc* screen is the sights (**1**). The orange sight is for your machine guns. (It's dead hard to shoot something with these as you need to be firing at exactly the right spot.) When you get a red sight and the phrase "lock on" appearing in the, er, lock on box (**2**) you can rattle off a guided missile. Hurrah! These are fairly limited though (**3** indicates how many you've got left – each missile icon represents five missiles) so use 'em wisely and shoot stuff instead when you can.

There's two damage indicators; a bar (**4**) – when it reaches the top you're finished, and a plane diagram (**5**) which shows how many bits of your plane have been shot to ribbons so far. There's also a fuel gauge (**6**) – when it reaches the bottom you fall out of the sky.

Then, on top of the level and lives indicators and the box with your score in it (find 'em yourselves), there's a radar (**7**) and a useless thing that shows you what angle you're flying at (**8**). Oh yeah, and something that shows you many baddies you've shot down, and how many you need to wax to complete the level (**9**).

SECOND OPINION
"It's very smooth and impressively programmed, but blimey – is this all there is? You can steer and shoot, but there's no real indication of altitude... in fact no flight sim elements at all."

Adam Waring

G-LOC
VERDICT

GRAPHICS............ 78%
From the sublime to the ridiculous.

SONICS................. 89%
Loads of fab and different noises.

GRAB FACTOR....... 82%
G-loc is very easy indeed to get into...

STAYING POWER... 61%
...just like the shallow end of your local pool.

RATING 68%

As aerial shooties go, this is passable. As CPC games go, it's passable but of little long-term interest.

Change the face of Amstrad Action!

Now's your chance to change the face of *Amstrad Action* as we head into 1992. The Amstrad market is changing all the time, and we aim to keep up with it. Most of all, though, we want to keep up with our readers!

We want to know what machine you have, what you use it for, what you want to see in *Amstrad Action*. In fact, we want to know everything about you and your computing!

But first, we want to say a big thanks to all those people who've responded to our regular monthly surveys so far. You've helped us out a hell of a lot already – and told us a few things we didn't know! It has all helped us build up a picture of our readership, and what you are like. Now, though, you get the chance to take part in the Big One. The survey that will decide the look of AA for 1992.

TO BEGIN WITH...
What sex are you?
☐ Male ☐ Female

How old are you?
☐ Under 8 ☐ 8-12 ☐ 12-16 ☐ 16-20
☐ 20-30 ☐ 30-40 ☐ 40-50 ☐ Over 50

1. THE MAGAZINE
This bit is all about the magazine itself. We're not going to swamp you with tons of boring questions. Instead, we've kept it simple. For each section we want you to give it a score out of ten according to how important it is to you. For example, if the covertape is the **only** reason you buy the magazine, give it 10 out of 10. But if it's simply a major reason – you buy the mag for other stuff too – give it, say, 7 out of ten). Remember, we'll be reading every single survey form sent back to us, so you're well and truly in the driving seat...

THE FRONT BIT

COVER
What do you think of *Amstrad Action*'s covers? Which do you prefer:
☐ Cartoon covers (comic-like)
☐ Serious–looking covers

COVERTAPE
(score out of 10 ....)
We try to combine both serious and games software on the covertape. Now's your chance to tell us what *you* want:
☐ More games
☐ More serious stuff

THE INSIDE PAGES
Okay, here we go (roughly in the order in which the different sections appear in the mag).

TAPE PAGES
(score out of 10 ....)
Details, instructions and controls for the games, demos and serious progs on the covertape.

AMSCENE
(score out of 10 ....)
All the latest news, products and gossip from the weird and wonderful world of the CPC.

REACTION
(score out of 10 ....)
This is the section where we print a selection of your sackloads of letters... and our replies.

ON THE GRAPEVINE
(score out of 10 ....)
The charts, games gossip, previews of upcoming games, and a look ahead to the next ish.

FORUM
(score out of 10 ....)
The techie section where readers can write in with technical problems and advice.

MASTERING MACHINE CODE
(score out of 10 ....)
Andy Price's machine code series is for users into programming who've gone beyond BASIC.

SERIOUS REVIEWS
(score out of 10 ....)
The pages where we keep you up to date on all the serious product coming out for the CPC.

ACTION TEST
(score out of 10 ....)
All the latest game releases, good and bad. Who wants to spend all that cash on a crap game!

CHEAT MODE
(score out of 10 ....)
Each month readers send in piles of tips, hints, maps and passwords for all the top games.

FILL IN THIS FORM!

Like the posters on the wall say, "if you don't register, neither will your views"!

That's right. This is your chance to shape the future of *Amstrad Action* for the coming year. If you don't tell us what you want, you've got no business complaining when you don't get it, have you!

Don't forget, we will be reading EVERY form, so your views really will count.

Goodies to be won!
Just to spice things up a bit, we're going to be sending off a brand new *Amstrad Action* binder to no fewer than 24 readers selected at random from those who get their questionnaire results to us by March 19th, 1992 (the on-sale date of the April issue).

Where to send your questionnaire
We've planned the questionnaire to fall on either side of a single page. Simply pull out this page (or photocopy it if you like) and send it in an envelope (no stamp needed!) to:

Amstrad Action
1992 Questionnaire
Future Publishing
FREEPOST
Bath, Avon BA1 2XF

BALROG
(score out of 10 ....)
Keeping us up to date with all the mysterious goings on in the world of CPC adventuring.

BUDGET BONANZA
(score out of 10 ....)
We review all the latest original budget games, plus all those re-releases of full-price products.

GALLERY
(score out of 10 ....)
Lots of arty pics knocked up by the readers (using a variety of CPC art packages) .

TYPE-INS
(score out of 10 ....)
Selections of BASIC programs for you to type in yourself. We award prizes, too!

HELPLINE
(score out of 10 ....)
The readers' help section, for help on games, getting hold of software, pen-pals, etc .

SPECIAL OFFERS
(score out of 10 ....)
The Mail Order page, where we chuck all the best bargains we've hunted out for our readers.

BUYERS' GUIDE
(score out of 10 ....)
Explaining the various things you can do with your CPC, and listing the best products to get.

AAFTERTHOUGHT
(score out of 10 ....)
A kind of humorous, self-indulgent, silly bit we knock up half an hour before going to press.

Any comments or suggestions about the mag-azine in general ....
....
....
....
....

2. YOU!
In this second part of the questionnaire we want to know a bit about you. No, we're not going to report you to the Poll Tax office! And we don't want to know any really personal stuff, just what you like doing with your computer, what you'd like to be able to do and what you plan doing in the future....

AMSTRAD HARDWARE
What machine do you own? (Tick the appropriate boxes)
- CPC464 CPC664 CPC6128
- 464 Plus 6128 Plus GX4000 console

PERIPHERALS
What plug-in goodies have you bought for your little plastic pal? (Tick the appropriate boxes)
- 64K RAM pack   RS232 interface
- Modem   External 3-inch drive
- External 3.5-inch drive   Multiface
- ROM box

THE AMSTRAD ACTION 1991 READERS' POLL
At last! – your chance to vote on the greatest – and duffest – happenings in 1991. We'll be collating all your answers for a grand awards ceremony in a future issue...

Best full-price game of 1991 ....
Best budget game of 1991 ....
Best software house of 1991 ....
Worst game of 1991...
Best magazine of 1991 (can be *any* magazine – not just computing) ....
Best TV programme of 1991 ....
Best film of 1991 ....
Best pop star/group of 1991 ....
Cool dude of the year ....
Idiot of the year ....
Event of the year...

OTHER MACHINES
What other machine/s do you own (if any)? Which would you *like* to own?

	Own	Would like!
Spectrum		
Commodore 64		
Atari ST		
Amiga		
PC		
Macintosh		
Sega Master System		
Sega Megadrive		
Nintendo NES		
Gameboy/Game Gear		

OTHER MAGAZINES
Do you read any of these mags regularly?
- Amstrad Computer User (ACU)
- CPC fanzines (e.g. Play Mates, Print Out)
- Computer & Video Games
- ACE
- Mean Machines
- Smash Hits/Fast Forward/Number One
- Viz/other 'adult' comic
- 2000AD/Eagle
- Beano/Dandy/other comic
- Shoot!/Match/90 Minutes

YOU AND YOUR AMSTRAD
How much do you use your CPC for serious stuff like programming, word processing etc?
- Not at all
- Some of the time
- That's all I use it for – no rubbishy games!

How many budget games have you bought over the past year, roughly?
- 1-5 5-10 10-20 More than 20

And how many full-price games have you bought over the past year, roughly?
- 1-5 5-10 10-20 More than 20

How much have you spent on hardware over the past year? ....
What did you buy?..

POCKET MONEY
How much pocket money do you get a week (if applicable)
- Under £1 £1-£2.99 £3-£4.99 Over £5

YOUR PLANS
Do you aim to expand your system or buy addi-tional software? If so, what do you plan on getting? ....

YOUR DETAILS
Phew! Thanks for the help. Now all we need is:
Your name ....
Your address ....
....
....

● You can remain anonymous if you like, but we won't be able to enter you in the prize draw without an address.

Amstrad Action's fiendish plans...
We've got some pretty smart (we think) ideas for *Amstrad Action* in the coming year, but this is where you get to tell us what you think of them...

1. Type-ins
Since we've now got a tape on the front of the mag, it seems a bit of a waste of time getting you lot to type the programs in. Why don't we just put them on the tape? We would, naturally, tell you what the programs did and how you use them inside the mag. What do you think?
Good idea Bad idea

2. Helpline
Why don't we make our Helpline feature more spe-cific and spread it through the mag? For example, a Helpline box in Cheat Mode, a Helpline box in Forum and so on...
Good idea Bad idea

3. New features
Here are some of the ideas we have for new regular columns in 1992. Which ones would YOU like to see?   Yes   No
A public domain column
A fanzine column
General interest – e.g. films, music
A cartoon strip
Other suggestions? ....

Type-Ins

This could be the last *Type-ins* ever as we know it! What? Sacrilege...!

Ah, but don't worry because we're only thinking about it... You see, type-ins could just as easily go on the covertape, couldn't they? After all, what's the point of typing in listings when you can load them from tape?

We would carry on doing a *Type-ins* sec-tion in the mag, though, just so that we can tell you what the listings are and what they do. Sounds good? Well, it makes sense to us, but if you lot out there have any objections, let us know – there's no point making the change if you'd still rather type the things in the hard way...

● Don't forget, we want your programs! We prefer short ones, but if they're especially good we'll consider longer progs. The best ones each month win their authors £20 upwards. Send your progs to: Type-ins, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW.

MINI-BALLDOZER
You might remember *Balldozer*, the mega-fab readers' game we had on our July covertape (*AA70*). Well this is, er, based on a similar kind of idea. Full instructions are given on-screen. There are 20 levels to pit yourself against. Some of them are pretty easy, but some will require a lot of brain-bending. Cypriot Polys Pilavas is responsible. Cheers, er, mate.

● Give your brains a basting with this little block-pushing puzzler from reader Polys Pilavas...

```
{NlBr} 10·MODE·1:INK·0,0:INK·1,12:INK·2,3:INK·3
        ,14:PAPER·0:CLS:
{FkHm} 20·PAPER·2:PEN·1:LOCATE·14,1:PRINT·"BALL
        DOZER·"2":LOCATE·12,3:PRINT·"BY·POLYS·P
        ILAVAS":PRINT·STRING$(40,"*"):LOCATE·1,
        6:PRINT·"Welcome·to·Balldozer·2...The·t
        ask·is····simple.Just·cover·all·asteris
        ks.How?·By·pushing·balls·on·them,······
        ············";
{AtEr} 30·PRINT·"Control·red·square·by·cursor·k
        eys.Push·[COPY]·for·pushing·balls·and·
        then·the····appropriate·cursor·key.The·b
        all·shall····move·as·far·as·it·goes,····
        ···········";
{AoEi} 40·PRINT·"You've·got·only·two·retries.[C
        TRL-R]···(in·fact·you·can·easily·have·
```

```
        thousands..easy·to·cheat,ha?).And·there
        ·are·twenty·levels."
{OrBw} 50·LOCATE·13,25:PRINT·"PRESS·<SPACE>":I
        F·INKEY(47)=-1·THEN·50
{JnEl} 60·SYMBOL·AFTER·32:FOR·X=1·TO·8:READ·A$:
        FOR·Y=1·TO·9:Z(Y)=VAL("&"+MID$(A$,2*Y-
        1,2)):NEXT:SYMBOL·Z(1),Z(2),Z(3),Z(4),Z
        (5),Z(6),Z(7),Z(8),Z(9):NEXT
{BoCp} 70·DATA·E60001070F1F3F3F7F,E73CFFFFFFFF
        FFFF,E80080E0F0F8FCFCFE,E97F7FFFFFFFFFF
        7F7F
{KjCo} 80·DATA·EAFEFEFFFFFFFFFFEFE,EB7F3F3F1F0F0
        70100,ECFFFFFFFFFFFFFF3C,EDFEFCFCF8F0E0
        8000
{DjEx} 90·DIM·COOR(8,8):DIM·CHX(5):DEF·FNX(B)=6
        +3*B:DEF·FNY(C)=3*C+1:R$=CHR$(8)+CHR$(8
        )+CHR$(8)+CHR$(10):Y$=""···"+R$+"···"+R$
        +"···":Z$=""···"+R$+"·*·"+R$+"···"
{JjCu} 100·X$=CHR$(&E6)+CHR$(&E7)+CHR$(&E8)+R$+
        CHR$(&E9)+CHR$(&8F)+CHR$(&EA)+R$+CHR$(&
        EB)+CHR$(&EC)+CHR$(&ED)
{EnAu} 110·LEVEL=0:RETRY=3:RESTORE·430
{MsBs} 120·LEVEL=LEVEL+1:IF·LEVEL>20·THEN·630:E
        LSE·READ·A$
{PsFx} 130·D=0:FOR·A=1·TO·5:CHX(A)=0:CHY(A)=0:N
        EXT:PAPER·0:CLS:FOR·Y=1·TO·6:FOR·X=1·TO
        ·6:COOR(X,Y)=0:NEXT:PAPER·3:PEN·2:LX=VAL("&"+MID$(A$,37,1)
        ):LY=VAL("&"+MID$(A$,38,1)):PAPER·3:PEN
        ·2
{HoBq} 140·FOR·C=1·TO·6:FOR·B=1·TO·6:LOCATE·FNX
        (B),FNY(C)
{OrAw} 150·IF·COOR(B,C)=1·THEN·PRINT·Y$
{DmBw} 160·IF·COOR(B,C)=2·THEN·PRINT·Z$:D=D+1:C
        HX(D)=B:CHY(D)=C
{GmAx} 170·IF·COOR(B,C)=3·THEN·PRINT·X$
{PlAm} 180·NEXT·B,C
{MiBp} 190·LOCATE·FNX(LX),FNY(LY):PAPER·2:PRINT
        ·Y$:PAPER·3
{AsDm} 200·LOCATE·28,5:PRINT·"LEVEL":LOCATE·30,
        7:PRINT·LEVEL:LOCATE·28,11:PRINT·"RETRY
        ":LOCATE·30,13:PRINT·RETRY
```

```
{FxDs} 210·IF·INKEY(50)=128·THEN·RETRY=RETRY-
        1:ENT·1,100,5,3:SOUND·1,142,140,15,0,1:
        IF·RETRY<1·THEN·110·ELSE·130
{ApDs} 220·IF·NOT·INKEY(8)·THEN·X=LX-
        1:IF·X<1·OR·COOR(X,LY)=0·OR·COOR(X,LY)>
        2·THEN·210·ELSE·LXO=LX:LYO=LY:LX=LX-
        1:GOSUB·330
{NpDr} 230·IF·NOT·INKEY(1)·THEN·X=LX+1:IF·X>6·O
        R·COOR(X,LY)=0·OR·COOR(X,LY)>2·THEN·210
        ·ELSE·LXO=LX:LYO=LY:LX=LX+1:GOSUB·330
{EsDr} 240·IF·NOT·INKEY(0)·THEN·Y=LY-
        1:IF·Y<1·OR·COOR(LX,Y)=0·OR·COOR(LX,Y)>
        2·THEN·210·ELSE·LXO=LX:LYO=LY:LY=LY-
        1:GOSUB·330
{IkDt} 250·IF·NOT·INKEY(2)·THEN·Y=LY+1:IF·Y>6·O
        R·COOR(LX,Y)=0·OR·COOR(LX,Y)>2·THEN·210
        ·ELSE·LXO=LX:LYO=LY:LY=LY+1:GOSUB·330
{KpAw} 260·IF·NOT·INKEY(9)·THEN·280
{KsAn} 270·GOTO·210
{GoDw} 280·IF·NOT·INKEY(8)·THEN·X=LX-
        1:IF·X<2·OR·COOR(X,LY)<3·OR·COOR(X-1,LY
        )=0·OR·COOR(X-
        1,LY)>2·THEN·210·ELSE·BX=LX-1:BY=LY:DX=
        -1:DY=0:GOSUB·380
{EsDx} 290·IF·NOT·INKEY(1)·THEN·X=LX+1:IF·X>5·O
        R·COOR(X,LY)<3·OR·COOR(X+1,LY)=0·OR·COO
        R(X+1,LY)>2·THEN·210·ELSE·BX=LX+1:BY=LY
        :DX=+1:DY=0:GOSUB·380
{MrEm} 300·IF·NOT·INKEY(0)·THEN·Y=LY-
        1:IF·Y<2·OR·COOR(LX,Y)<3·OR·COOR(LX,Y-1
        )=0·OR·COOR(LX,Y-
        1)>2·THEN·210·ELSE·BX=LX:BY=LY-1:DX=0:D
        Y=-1:GOSUB·380
{AqEm} 310·IF·NOT·INKEY(2)·THEN·Y=LY+1:IF·Y>5·O
        R·COOR(LX,Y)<3·OR·COOR(LX,Y+1)=0·OR·COO
        R(LX,Y+1)>2·THEN·210·ELSE·BX=LX:BY=LY+1
        :DX=0:DY=+1:GOSUB·380
{HpAx} 315·IF·INKEY(50)=128·THEN·210
{MlAl} 320·GOTO·280
{EwBu} 330·IF·COOR(LXO,LYO)=2·THEN·LOCATE·FNX(L
        XO),FNY(LYO):PRINT·Z$
{FqBu} 340·IF·COOR(LXO,LYO)=1·THEN·LOCATE·FNX(L
```

```
XO),FNY(LY0):PRINT Y$
{KoCm} 350 IF COOR(LX,LY)=1 THEN PAPER 2:LOCATE FNX(LX),FNY(LY):PRINT Y$:PAPER 3
{OsCs} 360 IF COOR(LX,LY)=2 THEN PAPER 2:PEN 3:LOCATE FNX(LX),FNY(LY):PRINT Z$:PAPER 3:PEN 2
{PpAm} 370 RETURN
{LjCu} 380 IF BX+DX(1 OR BX+DX)6 OR BY+DY(1 OR BY+DY)6 OR COOR(BX+DX,BY+DY)=0 OR COOR(BX+DX,BY+DY))2 THEN 420
{JuDx} 390 BXO=BX:BYO=BY:BX=BX+DX:BY=BY+DY:LOCATE FNX(BXO),FNY(BYO):IF COOR(BXO,BYO)=3 THEN COOR(BXO,BYO)=1:PRINT Y$ ELSE COOR(BXO,BYO)=2:PEN 2
{CjDn} 400 LOCATE FNX(BX),FNY(BY):IF COOR(BX,BY)=1 THEN COOR(BX,BY)=3:PRINT X$ ELSE COOR(BX,BY)=4:PEN 1:PRINT X$:PEN 2
{GsAl} 410 GOTO 380
{EiEl} 420 FOR A=1 TO 5:IF COOR(CHX(A),CHY(A))=4 OR COOR(CHX(A),CHY(A))=0 THEN NEXT ENT 1,100,-2,2:SOUND 1,142,140,15,0,1:GOTO 120 ELSE RETURN
{EpBp} 430 DATA 1110111311112121111311111110111156
{DnBn} 440 DATA 111111102131122311213111111111111116
{IxBp} 450 DATA 2113121101113311121101131111111312233
{NtBi} 460 DATA 1111111333121111111110001111211120016
{FtBq} 470 DATA 1101111111111133111010111211311111141
{PsBn} 480 DATA 1011111110111111101101111311210110114
{EwBp} 490 DATA 11111111013111102310230201113101112112123
{HrBn} 500 DATA 11111131111111111301311111032102111111
{CpBp} 510 DATA 11011121331121213113110111213110211021124
{DuBn} 520 DATA 1231112010103113111213123010101111126
{HnBq} 530 DATA 21212111121211111111111113333311111116
{IqBk} 540 DATA 00121013131013111011111011111120111111124
{PiBo} 550 DATA 1111111331111132211231101113111111116
{HmBp} 560 DATA 2111113131302031102013113111321321132132
{ImBm} 570 DATA 1111113113112111111121131131111111131
{AlBp} 580 DATA 111131111323113231132311323113164
{BvBn} 590 DATA 0111101323111323111111111111121123126
{MxBn} 600 DATA 1311111113331112113111111131111131
{FtBo} 610 DATA 1232311011011111131103112311131311116
{DmBn} 620 DATA 10011113201112311232331113111121111141
{BuBu} 630 PAPER 0:PEN 1:CLS:LOCATE 12,12:PRINT "THAT'S ALL FOLKS"
{LtBo} 640 A$=INKEY$:IF A$="." THEN RUN ELSE 640
```

CAT

Thomas Bond of Leatherhead, Surrey strolls in with a package under his arm. "What's that?" we all ask. "It's a disk directory scanning thingie," he replies, "Select User 229 to see erased files. Oh, and remember to type in those arrows properly; ctrl-K for the up arrow, ctrl-J for the down one, ctrl-H for the leftie, and ctrl-I (or TAB) for rightie." These Surrey lads, eh, flippin' mad or what?

```
{BsBj} 1 INK 0,0:BORDER 0:INK 1,24:PEN 1
{AsAk} 4 CLS
{LkAp} 5 ON DERR GOTO 50
{EuAq} 6 ON BREAK GOSUB 100
{JuAk} 7 TROFF
{NlEo} 8 MODE 1:CLS:PEN 1:PRINT "Disk Cat :- By Thomas Bond 1989&1990":PRINT:PRINT:"Insert a Disk and press any key.":WHILE INKEY$()"":WEND:WHILE INKEY$="":WEND
{LsBw} 10 CLS:PRINT "Drive is :-A":!A:PRINT:INPUT "Select User :-(0-255)";USE
{FlAq} 11 POKE &A701,USE
{LvAo} 15 GOSUB 200
{LpAr} 20 PRINT "done":STOP
{DvCj} 50 IF ERR(32) THEN PRINT "Typing Error" ELSE PRINT "Disk Error":GOTO 100
{NlAt} 100 PRINT "BREAK OUT...":STOP
{IqBj} 120 PRINT ERR;" is the error number
{LiBj} 130 PRINT ERL;" is the line number
{LoAk} 140 END
{CoAr} 200 MEMORY &7FFF:MODE 0
{NtBn} 210 DIM name$(63),type$(63),size$(63),ro$(63)
{HtBr} 220 FOR i%=&8000 TO &8038:READ code%:POKE i%,code%:NEXT i%
{NqAo} 230 CALL &8000
{PuAl} 240 MODE 2
{JkAn} 250 mem%=&884F
{Plkx} 260 drive$=CHR$(PEEK(&8841))
{HjCj} 270 user$=CHR$(PEEK(&8848))+CHR$(PEEK(&8849))+CHR$(PEEK(&884A))
{CrAp} 280 FOR i%=0 TO 63
{NlBq} 290 a%=PEEK(mem%):IF a%=13 THEN files%=i%:GOTO 400
{IjAv} 300 FOR j%=mem% TO mem%+7
{KqBn} 310 name$(i%)=name$(i%)+CHR$(PEEK(j%)):NEXT j%
{JtAw} 320 ro$(i%)=CHR$(PEEK(mem%+12))
{AqBx} 330 FOR j%=mem%+9 TO mem%+11:type$(i%)=type$(i%)+CHR$(PEEK(j%)):NEXT j%
{ItAr} 340 NEXT j%:mem%=mem%+13
{InAw} 350 FOR j%=mem% TO mem%+3
{PiBo} 360 size$(i%)=size$(i%)+CHR$(PEEK(j%)):NEXT j%
{DuAo} 370 mem%=mem%+6
{AtAl} 380 NEXT i%
{JnAn} 390 files%=64
{OjBl} 400 mem%=mem%+2:FOR j%=mem% TO mem%+3
{JlBj} 410 free$=free$+CHR$(PEEK(j%)):NEXT j%
{MnAi} 420 '
{MtBj} 430 PRINT "User catalogued is..........";user$
{DtBn} 440 PRINT "Using Disk Drive..........";drive$
{BsBv} 450 PRINT "the number of FILES in this USER are :";files%
{EsCo} 455 PRINT "..No..File Name..Space Used..Priority......Type....Length....Location....Exec."
{CjAs} 460 WINDOW 1,80,5,25
{NkAo} 470 FOR h%=0 TO 8
{BmGu} 472 IF name$(h%)="" THEN 520 ELSE GOSUB 11000:PRINT"†††";h%+1;"..";name$(h%),"..";type$(h%);"..";"..";size$(h%);"..";"'";IF ro$(h%)="*" THEN PRINT "-*"-THEN-PRINT.-
nd Write":GOTO 9000
{PwAo} 520 form$="DONE"
{NvHr} 530 WINDOW 45,80,1,3:PRINT"":CLS:bytes=VAL(free$)*1024:IF bytes=0 THEN PRINT "the DISK is FULL up":GOTO 540 ELSE PRINT "Calculating Disk Space :";k$=RIGHT$(free$,LEN(free$)-1):free$=free$+" free /":GOSUB 14000:free$=free$+" "+full$:PRINT free$
{NuAs} 540 REM.format detecting:
{FtAq} 550 OPENOUT "Y":CLOSEOUT
{EtAu} 560 form=PEEK(43167)
{AwBv} 570 IF form=193 THEN PRINT "This Disk is :DATA FORMAT"
{OxBs} 580 IF form=65 THEN PRINT "This Disk is :CP/M FORMAT"
{KtBt} 590 IF form=1 THEN PRINT "This Disk is :IBM FORMAT"
{BtAm} 595 PRINT""
{AiAr} 596 WINDOW 1,80,1,25
{FuAu} 597 LOCATE 45,3:PRINT SPC(36)
{NkBm} 598 LOCATE 1,21:form$="COMPLETE":GOSUB 880:RUN
{DrBk} 600 DATA &21,&d9,&bd,&11,&28,&80,&01,&03
{NjBk} 610 DATA &00,&00,&ed,&b0,&21,&2b,&80,&11,&d9
{NtBk} 620 DATA &bd,&01,&03,&00,&ed,&b0,&11,&39
{LsBl} 630 DATA &80,&cd,&9b,&bc,&21,&28,&80,&11
{HxBj} 640 DATA &bd,&01,&03,&00,&ed,&b0,&00,&b0,&b0
{HlBj} 650 DATA &80,&00,&00,&c3,&2e,&80,&2a,&37
{NpBn} 660 DATA &80,&77,&23,&22,&37,&80,&c9,&80,&88
{IrAk} 670 STOP
{NtDq} 680 a=0:FOR t=&9000 TO &9020:READ a$:POKE t,VAL("&"+a$):NEXT:GOTO 720
{GmBq} 690 DATA 11,00,c0,21,21,90,06,0c,cd,77,bc,32,2a,90
{ExBp} 700 DATA ed,53,2e,90,ed,43,30,90,11,1a,00,19,22,32
{NwAt} 710 DATA 90,cd,7a,bc,c9
{KsBr} 720 z$=name$(h%)+"."+type$(h%):POKE &9007,LEN(z$)
{HxBp} 730 PRINT:z$=UPPER$(Z$):FOR t=&9021 TO &9021+LEN(z$)-1
{EqAs} 735 IF a)11 THEN STOP
{LsBn} 740 POKE t,ASC(MID$(z$,a+1,1)):a=a+1:NEXT t:CALL &9000
{EsDt} 750 a=PEEK(&902D):IF a=2 THEN PRINT "†↔↔↔↔↔↔↔↔↔↔↔↔↔↔ Binary":exec=1:a=a-2:GOTO 790
{IvCw} 760 IF a=1 THEN PRINT "†↔↔↔↔↔↔↔↔↔↔↔↔↔P. Basic":a=0:GOTO 790
{FuCp} 770 IF a=0 THEN PRINT "†↔↔↔↔↔↔↔↔↔↔↔↔↔Basic"
{KpCn} 780 IF a)2 THEN PRINT "†↔↔↔↔↔↔↔↔↔↔↔↔↔Ascii"
{KpBi} 790 b=PEEK(&902E):c=PEEK(&902F)
{GwDn} 800 PRINT "†↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔&";HEX$(c);HEX$((b),2);"↓"'LOCATE
{PxAx} 810 d=PEEK(&9030):e=PEEK(&9031)
{DpCv} 820 PRINT "†↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔&";HEX$(e);HEX$((d),2);"↓↓"'lnth
{HsFt} 830 IF exec=1 THEN f=PEEK(&9033)*256+PEEK(&9032):PRINT:"†††↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔↔";HEX$(f+1);HEX$(PEEK(f),2);"↓":exec 0 ELSE exec=0
{OmAm} 840 RETURN
{DuGt} 860 FOR i%=af TO bf:GOSUB 680:IF name$(i%)="" THEN 520 ELSE PRINT"..";i%+1;".
'";name$(i%);"..";type$(i%);"-..";i%+1;"'';i%+1;"''";size$(i%);"'";:IF ro$(i%)="*" THEN PRINT "-R·O":GOTO 861 ELSE PRINT "-R·W":NEXT i%:RETURN
{EmGw} 870 'STOP FOR i%=af TO bf:GOSUB 680:IF name$(i%)="" THEN 520 ELSE PRINT "-";i%+1;"'';"'";name$(i%);"-..";i%+1;"''";size$(i%);"'";:IF ro$(i%)="*" THEN PRINT "-R·O":GOTO 871 ELSE PRINT "-R·W":NEXT i%:RETURN
{LpEk} 880 WHILE INKEY$()"":WEND:a=0:IF form$="DONE" THEN RETURN ELSE LOCATE 1,21:PRINT "(PRESS ANY KEY)":WHILE INKEY$="":WEND:CLS:RETURN
{HqAm} 8999 STOP
{KiAj} 9000 '
{EvBi} 9001 GOSUB 10000:h%=h%+1:GOSUB 680:GOTO 472
{OsAm} 9003 NEXT h%
{IqAm} 9010 NEXT h%
{HjAm} 9011 GOTO 474
{NvBk} 10000 IF h%=17 THEN GOSUB 880:RETURN
{PoBj} 10001 IF h%=35 THEN GOSUB 880:RETURN
{GpBl} 10002 IF h%=53 THEN GOSUB 880:RETURN
{AuBk} 10003 IF h%=63 THEN GOSUB 880:RETURN
{IvAo} 10004 RETURN
{KnBm} 11000 IF h%=0 THEN PRINT "††";:GOSUB 680
{IsBl} 11001 IF h%(9 THEN PRINT "-";:RETURN
{BxAu} 11002 PRINT "-";:RETURN
{GjAr} 11003 REM.K.top.dect.
{MkAq} 14001 OPENOUT "Y":CLOSEOUT
{LxAv} 14002 dect=PEEK(43167)
{MxBl} 14003 IF dect=193 THEN full$="178K"
{PsBl} 14004 IF dect=65 THEN full$="169K"
{OoBj} 14005 IF dect=1 THEN full$="154K"
{HpAm} 14006 RETURN
```

APPLE DAYS

Games like these are what most people end up with as their first major CPC programming venture. *Apple Days* differs from the rest mainly because of its zany scrolling. Weird, man. Full instructions are available on screen, or by writing to Shane Stewart at his Co Cavan (Eire) home.

```
{NiEs} 1 SYMBOL AFTER 240:SYMBOL 240,60,36,66,255,255,126,126,60:SYMBOL 241,4,8,28,58,62,28:SYMBOL 242,128,82,85,185,95,165,255,255:SYMBOL 243,0,255,255,247,227,227,193
{BkEo} 3 MODE 1:PEN 1:OUT &BC00,2:OUT &BD00,46:LOCATE 1,1:PRINT"BY SHANE STEWART 1991":PRINT:PRINT"CONTROLS: LEFT·''Z''":PRINT"..........RIGHT·'\"
{PuEo} 4 PRINT:PRINT"YOU·CONTROL·THE·BUCKET·AT·THE·BOTTOM·OF·THE·SCREEN.·YOU·MUST·MOVE·LEFT·AND·RIGHT·TO·COLLECT·THE·FALLING·APPLES.WHEN·THE·."
{CtEl} 5 PRINT"DAY·IS·OVER·YOU·WILL·BE·SHOWN·HOW·MANY·APPLES·YOU·COLLECTED·AND·MISSED .IF·THE·DIFFERENCE·BETWEEN·THE·NUMBER·OF·APPLES."
{HrHu} 6 LOCATE 1,12:PRINT"YOU·COLLECTED·AND·THE·APPLES·YOU·MISSED·IS·GREATER·THEN·SEVEN·THEN·YOU·WILL·GO·ON·TO·THE·NEXT·DAY .AFTER·EACH·DAY·THE·.·TREES·WILL·GET·LOWER.THERE·ARE·8·DAYS.";:L=1:PRINT:INPUT"LENGHT·OF·EACH·DAY·(2-10)";J:IF J(2·OR·J)10 THEN J=7
{EpHu} 10 OUT &BC00,6:OUT &BD00,0:MODE 1:BORDER 4:S=0:INK 3,21:INK 2,10:PEN 1:LOCATE 15,1:PRINT"APPLE·DAYS":LOCATE 2,2:PRINT"APPLES";:S:PEN 2:FOR G=2 TO 39:LOCATE G,25:PRINT CHR$(242):NEXT:PEN 9:GOSUB 250:X=20:Y=24:A=3+L:M=0:H=46:R=INT(RND*30)+5:T=J*100
{HkDs} 11 FOR r=1 TO 25:CALL &BD19:OUT &BC00,6:OUT &BD00,r:NEXT:LOCATE 31,2:PRINT"DAY:";L:IF L)8 THEN GOTO 210 ELSE 15
{ErBm} 15 LOCATE X,Y:PRINT"·":LOCATE R,A:PRINT"·"
{FxDl} 20 IF INKEY(71)=0 AND H)31 THEN X=X-1:H=H-1:FOR W=H TO H:CALL &BD19:OUT &BC00,2:OUT &BD00,W:NEXT
{PoBj} 30 IF INKEY(22)=0 AND H(61 THEN X=X+1:H=H+1:FOR W=H TO H:CALL &BD19:OUT &BC00,2:OUT &BD00,W:NEXT····
{JxAm} 70 T=T-1
{BiBk} 80 IF T(0 THEN GOTO 190 ELSE 100
{BrCs} 100 LOCATE X,Y:PRINT CHR$(240):LOCATE R,A+1:PRINT CHR$(241):PEN 9:LOCATE 9,2:PRINT S
{IuAm} 110 GOTO 15
{AuFm} 195 CLS:OUT &BC00,2:OUT &BD00,46:LOCATE 15,10:PRINT"DAY";L;"OVER":LOCATE 14,12:PRINT"YOU·CAUGHT";S:LOCATE 14,14:PRINT"YOU·MISSED";M:LOCATE 8,24:IF S-M)7 THEN L=L+1
{HuAw} 195 IF S-M)7 THEN GOTO 196 ELSE 200
{BxCv} 196 FOR R=1 TO 10:CALL &BD19:OUT &BC00,13:OUT &BD00,R:NEXT:FOR P=1 TO 4000:NEXT:GOTO 10
{GuCq} 200 LOCATE 15,10:PRINT" GAME·OVER.":LOCATE 8,20:PRINT"DO·YOU·WANT·ANOTHER·GAME?"
{NkBt} 205 A$=INKEY$:IF A$="Y" OR A$="y" THEN GOTO 1 ELSE END
{OxAl} 208 GOTO 205
{GiFp} 210 LOCATE 16,10:PRINT"GAME·OVER":LOCATE 3,12:PRINT"WELL·DONE·YOU·COMPLETED·ALL·LEVELS":LOCATE 8,20:INPUT"DO·YOU·WANT·ANOTHER·GAME?";A$:IF A$="Y" OR A$="y" THEN GOTO 1 ELSE END
{BxBq} 230 R=INT(RND*35)+1:IF R(5 THEN 230 ELSE RETURN
{CqCp} 250 PEN 2:FOR K=3 TO 2+L:LOCATE 5,K:PRINT STRING$(30,CHR$(243)):NEXT K:PEN 9:RETURN
```

room. You'll be dissing them and they won't even realise! Joe Moulding from down Coventry way, what a rapscallion you are!

KWIK MUSIQUE 2

This is completely brilliant! Whack in a series of random letters and numbers (running your fingers all over the keyboard) to create a brilliant tune! Or type in some abusive message directed at a relative and play it when they're in the

```
{OjBi} 5 DIM Q$(20),VOL(20),LENG(20)
{MoAu} 10 INK 1,24:INK 0,1:BORDER 1
{InAu} 30 FOR A=1 TO 20:LENG(A)=20
{EwAs} 40 VOL(A)=13:NEXT A
{FiBt} 100 PAPER 0:PEN 1:CLS:LOCATE 10,4:PRINT "KWIK·MUSIQUE·2"
{GwBj} 110 LOCATE 10,5:PRINT",,,,,,,,,,"
{NkBi} 120 LOCATE 5,7:PRINT "OPTIONS."
{AlBl} 130 LOCATE 6,8:PRINT "1.·PLAY·MUSIQUE"
{EsBi} 140 LOCATE 6,9:PRINT "2.·KWIK·COMPOSE"
{NvBi} 150 LOCATE 6,10:PRINT "3.·CHANGE·VOLUME"
{PmBi} 160 LOCATE 6,11:PRINT "4.·NOTE·LENGTH"
{HqBk} 165 LOCATE 6,12:PRINT "5.·INFORMATION"
{GoBi} 170 R$=INKEY$:IF R$="" THEN 170
{IjAt} 180 IF R$="4" THEN 530
{HoAs} 190 IF R$="3" THEN 530
{PnAt} 200 IF R$="2" THEN 500
{IwAu} 210 IF R$="1" THEN 630
{HnAv} 215 IF R$="5" THEN 2000
{OnAm} 220 GOTO 170
{DnCk} 500 LOCATE 1,15:INPUT "WHICH·TUNE,";TUNE:IF TUNE(1·OR·TUNE)20 THEN 500
{MwBm} 509 PRINT "OLD·LENGTH:";LENG(TUNE)
{FoBo} 510 PRINT:PEN 1:LOCATE 1,15:INPUT "NEW·LENGTH:·";LENG(TUNE)
{OuBp} 515 IF LENG(TUNE))100 OR LENG(TUNE)(5 THEN 510
{CiAm} 520 GOTO 100
{JrCl} 530 LOCATE 1,15:INPUT "WHICH·TUNE,";TUNE:IF TUNE(1·OR·TUNE)20 THEN 530
{MuBu} 539 PRINT "OLD·VOLUME:";VOL(TUNE):PRINT"·..(MUST·BE·)9·OR·(16)"
{AkBm} 540 PRINT "NEW·VOLUME:·";:INPUT "",VOL(TUNE)
{IqBp} 545 IF VOL(TUNE))15 OR VOL(TUNE)(10 THEN 540
{CkAm} 550 GOTO 100
{DpCl} 600 LOCATE 1,15:INPUT "WHICH·TUNE(1-20);",TUNE:IF TUNE(1·OR·TUNE)20 THEN 600
{LrBk} 609 PRINT:PRINT "MAXIMUM·CHARACTERS·-120"
{DtBu} 610 PRINT "KWIKLE·TYPE·KEYS·-·AT·THE·END·PRESS·ENTER"
{MuAu} 620 PRINT:INPUT "",Q$(TUNE)
{FxAo} 625 GOTO 640
{KtCp} 640 R=LEN(Q$(TUNE))
{IuAp} 640 R=LEN(Q$(TUNE))
{BxBr} 649 FOR D=1 TO R:O$=MID$(Q$(TUNE),D,1):L=ASC(O$)
{GiBp} 650 SOUND 1,L,LENG(TUNE),VOL(TUNE):NEXT D
{MxAl} 660 GOTO 100
{FkEu} 2000 FOR S1=1 TO 2:CLS:FOR S=(S1*10)-9 TO (S1*10):PRINT "TUNE·";S;"·NOTE·LENGTH:·";LENG(S)":·VOLUME:";VOL(S):PRINT Q$(S):NEXT S:PRINT "PRESS·SPACE·TO·CONTINUE"
{PkBn} 2010 IF INKEY$="" THEN NEXT S1:GOTO 100
{DnAn} 2020 GOTO 2010
```

[What's this extra space at the end of the line? Sloppy programming, mate. We don't notice till it's laid out on the page and then it's too late, we can't remove the space without messing up the *Type-Righter* code. Joe's not the only one though. Don't do it kids. Grrr.]

AA

BUYERS' GUIDE

● Your CPC is capable of much more than just playing games. Indeed, when the machine was first launched, it was intended as a serious all-rounder. Even now you can still get lots of software that lets you turn your CPC into a proper business machine...

Accounts

There's more to the serious side of Amstrad computing than word processing. A whole plethora of packages can turn your plastic pal from a games playing gizmo into a business machine capable of cutting down the paperwork and making your life a whole lot easier. ADAM WARING is your guide...

Most serious programs require a disk drive. In fact you'd be wise to invest in one if you intend to use your machine for anything but a tiny amount of serious work. These programs generally need to store a lot of data, and you need an accessible and reliable place to store it.

HOME HELP

Business packages aren't just for business – they have plenty of good uses around the home too. Databases can keep records on practically anything you could want. You could put your cross-referenced record collection on a database, or store information about your rare Victorian pigmy figurines.

Accounts packages can be used to keep an eye on your bank balance – in fact some programs are especially tailored to look after the home finances.

Spreadsheets can be used to plan your spending. Now lets see, will I be able to by the electric muffin making machine *and* afford the holiday in Scunthorpe...?

MATRIX

SPREADSHEET PLUS

INSTRUCTION MANUAL

ASL – *Audiogenic Software Ltd.*
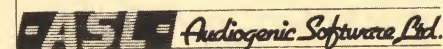
● Spreadsheets act like highly-complex calculators, letting you carry out all sorts of heavyweight financial planning.

DATABASES

Keeping accurate records is an important part of an efficient business and a database is the electronic way to do this. They work a little like those card filing boxes that you can buy from WH Smith's; each 'card' holds a related set of information such as name, address and so on. These cards, or records, can then be flicked through to find the information you want.

But databases are much more powerful than that. Searches can be made on a variety of fields of information, so instead of looking through every single card to see who's paid their annual subscription for the butterfly collectors' club, you can simply specify the date joined and find it quickly that way.

Databases speed things up considerably. Huge amounts of information can be sifted through in seconds, and of course there's no bulky filing cabinets stuffed to overflowing with bits of paper.

There are generally two parts to a database. Firstly you have to define a template. This sets out the way the information is stored, so you can create fields for name, address, inside leg measurement etc.

The next step is to add the data. The information is typed into the spaces created when the record layout was designed. As they're created they're added to the back of the 'stack' of cards.

Now all the info's safely tucked away, you can browse through it at your leisure. You can search using a variety of criteria, more advanced programs allowing you to search for data adhering to specified limits and using wildcards.

ACCOUNTS

Keeping track of finances can be a bit of a headache, and it's always prudent to keep an eye on the cash flow. It's important to know who owes you how much money. Accounts packages let you keep tabs on your loot and an efficient system is absolutely vital. Most forms of business depend of a credit/debit system and this allows you to see who's honouring your payment by 30 days' terms. They'll alert you to who's not paying their bills and tell you when it's time to send the boys round.

Some will generate invoices for you too, so when you log in the bills it will print out the paperwork for you to send out with your orders.

It'll let you know when your bills are overdue as well, and will let you know when it's time for you to shell out for that consignment of rubber grommets from Thailand.

A good package will make things easier for your accountant too, and so you'll be getting

● Mini Office is one of the best-know 'integrated packages' for the Amstrad.

● Databases let you store and retrieve information on products, people and more.

less of a bill at the end of the year. Depending on the complexity of the package, it can figure out those horrible tax and VAT thingies as well to HM Inspectors happy.

SPREADSHEETS

No one likes hard sums, especially when the calculations are complicated things like cash flow predictions or budgets. A single altered figure can require whole reams of data to be recalculated. A bit of a headache when all you're armed with is a calculator, a pencil and piece of paper.

A spreadsheet makes this easy. Complex 'what-if' scenarios can be tried out quickly and easily. How does increasing the advertising spend effect things? You get instant results by simply tapping in the figures and seeing what the computer comes up with. Hmm, that leaves

WHAT TO GET

DATABASES

Instant Recall (Audiogenic)
☎ 081 861 1166 ▪ £17.95 tape, £24.95 disk
Reasonably fast and with good search facilities. The only database in our survey that will also work on a tape-based machine.

Masterfile III (Campbell Systems)
☎ 081-502 3334 ▪ £39.95 disk
CP/M Plus based database filing program. Has parent/child records – which enables further cards to be linked.

ACCOUNTS

Cashmaster (Intraset)
☎ 02572 76800 ▪ £39.95 disk
Easy to use and fully featured. Also available is a companion invoicing program that will allows you to send off the all-important stationary to your customers, this puts the price up to £69.95.

General Ledger (SD Micro-systems)
☎ 0406 32252 ▪ £19.95 disk
Simple to use, handles VAT and tax and there's an enhanced 6128 version for an extra tenner

SD Micro-systems also offers a number of other, more specialised programs.

Cashbook (Audiogenic)
☎ 081 861 1166 ▪ £12.95 tape, £17.95 disk
Cheapest of the lot, but not as fully featured as some of the other packages around.

SPREADSHEETS

Matrix (Audiogenic)
☎ 081 861 1166 ▪ £17.95 tape, £24.95 disk
Uses disk to store data so has large capacity but constant disk access means it's a bit on the slow side. Has a good selection of graphics options.

Cracker (Newstar)
☎ 0245 265017 ▪ £50 disk
CP/M Plus-based spreadsheet, so 128K is needed to run. Good documentation and has plenty of mathematical functions, including a 'random number' capability.

INTEGRATED PACKAGES

Mini Office 2 (Database software)
☎ 0625 878888 ▪ £14.95 tape, £19.95 disk
All in one package that has both a database and spreadsheet as well as word processor and comms software. Not very advanced, but just look at the price! AA Best Buy

us two thousand pounds in the red... Oh well, back to the drawing board.

It's like a huge sheet of paper with rows and columns. The information is tapped into what are known as 'cells' that lie at the intersections. A cell can contain text, numbers or a mathematical formula.

In actual use you don't see the formula on screen, though – whenever you make a change to your data, any calculations affected are updated and so you see what you can what's going on in an instant.

Basic mathematical functions are always supported, but more advanced packages can handle iterations (recursive formulas where a formula is consistently recalculated, based on the modified results).

Graphics, too are supported by some packages so you can see the results in a pretty, easy-to-understand format.

Jargon-busting

DATABASES

Record – name for each of the individual 'cards' used in a database.

Field – specific area on a record that refers to an area for data to be entered that's common to all the records used in the database.

Template – blank 'master' record that's used as a basis for all the information-storing records. It's designed in a separate section of the program and needs to be laid out before any data can be entered.

Search – facility for finding the information stored in the database quickly and easily. Search facilities vary in sophistication, but all will allow you to look for information in any of the fields on a record.

ACCOUNTS PACKAGES

Ledger – the old fashioned book that accounts information used to be kept in and that accounts programs have superseded.

Credit – the money people owe you!

Debit – the outstanding bills that you'll have to pay off by the end of the month.

Invoice printing – the ability for a program to generate invoices for you to send to your customers

SPREADSHEETS

Cell – area on the spreadsheet where the information is entered.

Iteration – recursive formula that is re-calculated many times before the result is finally arrived at.

Beat-em-ups

In the third in our series of something-em-ups we look at beaties, those games where you have to do lots of nasty things to lots of (presumably nasty) people. Gratuitous violence ahoy...!

Your mum's nagging you to tidy your room, your history essay is four days late, your girl/boyfriend is getting awfully friendly with one of your mates, and you've just broken your best joystick. You are angry! Time to give vent to your frustrations.

Er, well you could set fire to your room so you don't have to tidy it. You could savagely murder your history teacher, with a cold sausage, so you don't have to hand the essay in. Find a new mate? Break into a friend's house and steal their Mega-Death joystick (with 75 different fire buttons) perhaps?

Alternatively, why not switch on the old CPC and boot up some majorly violent game? You know, one where your sprite has to wander the streets pounding grannies' heads into the pavement and stuff.

Beat-em-ups are a strange breed. Lots of people think they're fab, but an equal number reckon they're a waste of old Y-fronts. All that wandering around waggling the joystick and doing very little else. Dull, dull, dull, dull, dull. (*You don't like them then? – ed.*)

Beaties first began with single-screen karate combat things. *Karate Champ* was the first to hit the arcades, and Bug Byte's *Kung Fu* was the first home computer jobbie. It was a black and white screen, and you had to stand there pummeling seven shades of sawdust out of your opponent.

The Way of the Exploding Fist (AA's first ever Mastergame) was a similar sort of thing. The first multi-screen exploratory beaties appeared in the form of *Kung Fu Master* in the arcades (later converted by US Gold with moderate success), along with *Fighting Warrior* and the brilliant *Bruce Lee* on home machines.

Later beaties have combined martial arts action with ordinary fisticuffs, and moved from exotic Far East locations to the urban jungle of the rough inner cities of the future. The *Renegade* games marked the start of this trend. We've also seen the fantasy slash-em-up action of the *Barbarian* games, and the odd reptilian ninja activities of those *Turtles* chaps.

And that's beat-em-ups really; sheer mindless fun. Come on, come 'ere, I'll take you all on. (*Calm down lad – ed.*)

BEST BEAT-EM-UP

Final Fight (US Gold)

The streets of Metro City are violent, all covered in blood and severed limbs and stuff. This group of nasty gangspeople called the Mad Gears have taken control, see, and it's down to you to sort them out. You

can choose which of the three heroes to be (the karate bloke, the ninja bloke or the all-in wrestler). *Final Fight* is a 128K-only coin-op convo, most notable for its incredible graphics the
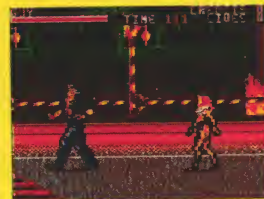
● Here's a couple of the nasty baddie sprites you'll be coming up against.

sprites, which are bigger than a very big thing). There's loads of separate levels and stages involved, a plethora of fighting moves, and excellent (and very funny) animation.

There's lots of different bad guys and a large enough game area to make *FF* a serious long-term challenge. If you like mindless violence you'll love this, so go get it. (Er, and if you've got an unexpanded 464 or 664, you'd better get a 64K memory upgrade while you're at it.) Punchabunga!

● Ha ha! As well as kicking, punching and throwing people, you can also grab them by the scruff of the neck and take them for a walk. Heartless or what?

BEAT-EM-UPS TOP TEN

1) Final Fight (*US Gold*)
Pile-driving, karate-throwing and massive sprites galore on the streets of Metro City. 93% (AA74)

● "My oh my, Mr Final Fight, what big sprites you have." "All the better to, er, animate the action with."

2) Barbarian 2 (*Palace*)
Dodgy cover artwork, but plenty of monster-slashing action. 92% (AA44)

3) Turtles 2 – The Coin-Op (*Mirrorsoft*)
The first *Turtles* game was pretty average, but this coin-op convo is brill. 91% (AA75)

4) Renegade (*Imagine*)
The game that set the standards for urban hoodlum punch-and-kick games. 90% (AA25)

5) Bruce Lee (*US Gold*)
A platformy karate thing, which Adam P reckons is the best game ever (daft berk). 88% (AA2)

6) Total Recall (*Ocean*)
A mediocre film, but an excellent game. Punch out people's lights all across Mars. 91% (AA68)

7) Shinobi (*Virgin*)
Full-price, budget, two compilations. This Ninja kick-em-up has certainly done the rounds. 87% (AA50)

● Shinobi is a sort of ninja thing, where you jump on boxes and stuff. Oh yeah, and fight lots of bad guys, of course.

8) The Way of the Exploding Fist (*Melbourne House*)
AA's first ever Mastergame. A single-screen karate contest with a fab two-player mode. 94% (AA1)

9) Target Renegade (*Imagine*)
The sequel that, er, set further standards for urban hoodlum etc etc etc. 86% (AA35)

10) Barbarian (*Palace*)
Time to nip down the dungeons and chop up some monsters. 87% (AA23)

AAfterthought

Good intentions for 1992

Come on then, how many of you lot came up with a New Year's Resolution? How many of you have broken it already? Well, just to show you we're a responsible, globally-aware bunch at *Amstrad Action*, here's our own New Year's Ressies (and when they were broken).

Rod

"For the New Year, I resolve never again to be rude about Maryanne's driving. Learning to drive is very difficult, and people are especially vulnerable in unfamiliar situations, or while learning new skills."

Broken: January 3rd – when Maryanne drove over his foot in the car park. The foot was broken too.

Adam Peters

"The capitalist state is an outrage against humanity. I forthwith renounce this country's entire monetary system, which is merely tool used to oppress the masses."

Broken: January 5th – when he found a 50p piece in the corridor.

Angela

"I'm going to stop nagging Adam and Rod about having copy ready. I know it's not easy writing for a magazine. It's a job requiring tremendous skill, inventiveness and perception, and there are probably only a few people in the country clever enough to do it… (*Hang on, I never said any of that! – Ange*)

Broken: January 14th – on hearing that the main feature for the September 1993 issue wasn't finished yet.

Maryanne

"It's horrible how many little puppies and kittens are abandoned by uncaring owners. I'm going to set up a little animal home with lovely floral curtains and special little baskets and rubber bones and ribbons and… (*stop it stop it stop it! – ed*)

Broken: January 1st – when she trod in some doggie-plop on the way home and said some very unkind things about animals in general.

Jane Richardson (publisher)

"Rod and Adam have done such a good job I'm going to give them a whopping big rise just as soon as possible (*oi, you two – into my office now! – pub*)."

Broken: January 6th – approximately 11.2 seconds after the issue came back from the printers.

Adam Waring

"I'm going to stop going to parties and trying to get off with girlies. It's time I settled down and grew up and behaved in a mature, responsible fashion. In 1992 you can look forward to the new, clean-cut Adam Waring."

Broken: January 3rd – when… well, we hardly need say a thing. Just take a look at our BLACKMAIL SPECIAL opposite. Ho ho ho…

BLACKMAIL CORNER!

Welcome to *Amstrad Action's* brand new, fun-filled blackmail slot. This week, we feature *AA's* very own Consultant Tech Ed Adam Waring in an intimate embrace with… a *mystery* lady.

Who is it? Well we know, and Adam knows. And Adam knows we know. And the young lady in question knows. And she knows the Adam knows and that Adam knows we know, and er, that… (*yes, all right – ed*)

So we can either keep quiet about the whole thing… OR LET THE WORLD KNOW.

…Nope, sorry Adam, £5 isn't enough. Hmm… this photograph really is exceptionally clear… ah, yes, but you can't get much for a tenner, can you? Just look at all that detail! And hang on, look, this sticky label is peeling off really easily… Hello, is that the telephone I hear?

"Hello? *Psst!* – it's our mystery lady folks!

"Hello? Yes? Twenty pounds? Hmm, I don't know… Forty? Now that's more like it. Ah, if only we'd stuck down that label a bit better… Fifty quid? Done! Bye bye…" Phew, that was a close one. What, you want to know who it was? OK, then, you win – the name of our mystery lady is

Censored

IT'S UNTHINKABLE! Just imagine… you go to your newsagents and THEY'VE SOLD OUT OF *AA*. You think it couldn't happen? Well it could! – Last month it was Mr Sidney Pickersgill of Worplesdon. This month it could be YOU!

So, don't miss your regular copy of **AMSTRAD ACTION** – give this form to your newsagent:

Dear Newsagent, please reserve *Amstrad Action* for me every month, beginning with the March issue, out on Thursday 20th February.

My name...

My address ....

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